UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

VIRTAMOVE, CORP., Plaintiff, v. HEWLETT PACKARD ENTERPRISE COMPANY, Defendant.	§ § § § § § § § § §	Case No. 2:24-cv-00093-JRG (Lead Case) **JURY TRIAL DEMANDED**
VIRTAMOVE, CORP., Plaintiff, v. INTERNATIONAL BUSINESS MACHINES CORP., Defendant.	§ § § § § § § § § §	Case No. 2:24-cv-00064-JRG (Member Case) **JURY TRIAL DEMANDED** **PUBLIC VERSION - REDACTED**

DEFENDANT IBM'S ANSWER TO COMPLAINT AGAINST DEFENDANT INTERNATIONAL BUSINESS MACHINES CORP., AFFIRMATIVE DEFENSES, AND COUNTERCLAIMS

Defendant International Business Machines Corp. ("IBM" or "Defendant") hereby submits its Answer, Affirmative Defenses, and Counterclaims to Plaintiff VirtaMove, Corp.'s ("VirtaMove" or "Plaintiff") Third Amended Complaint for Patent Infringement ("TAC"). Dkt. 101. IBM denies all allegations in VirtaMove's TAC unless expressly admitted in the following paragraphs. Any admissions herein are for purposes of this matter only. IBM also reserves the right to amend or supplement its Answer, Affirmative Defenses, and Counterclaims.

INTRODUCTION AND PARTIES

1. IBM admits that the Complaint purports to allege that IBM infringed two patents purported to be VirtaMove's: U.S. Patent Nos. 7,519,814 (the "'814 Patent") and 7,784,058 (the "'058 Patent") (collectively, the "Asserted Patents"). IBM denies that it has infringed or is infringing the Asserted Patents. IBM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 1 of the TAC and, therefore, denies them.

2. IBM is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 2 of the TAC and, therefore, denies them.

3. IBM is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 3 of the TAC and, therefore, denies them.

4. IBM is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 4 of the TAC and, therefore, denies them.

5. IBM is without knowledge or information sufficient to form a belief as to the truth of the allegations in Paragraph 5 of the TAC and, therefore, denies them.

6. IBM admits that IBM is a corporation organized and existing under the laws of the State of New York, with its corporate headquarters located at One New Orchard Road, Armonk, New York 10504. The remainder of Paragraph 6 of the TAC sets out a legal conclusion to which no response is necessary. To the extent that a response is required, IBM denies the remaining allegations in Paragraph 6 of the TAC.

JURISDICTION AND VENUE

7. To the extent the allegations in Paragraph 7 of the TAC set forth legal conclusions, no response is required. IBM admits that the TAC purports to set forth an action arising under the

patent laws of the United States, 35 U.S.C. § 1 *et seq*. IBM admits that this Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. §§ 1331 and 1338(a). IBM denies any allegations regarding patent infringement contained in this paragraph.

8. To the extent the allegations in Paragraph 8 of the TAC set forth legal conclusions, no response is required. Solely for the limited purpose of this action only, IBM admits that this Court has personal jurisdiction over IBM. IBM denies all allegations of wrongdoing or infringement. IBM denies the remaining allegations in Paragraph 8 of the TAC.

9. No response is required as to the allegations in Paragraph 9 of the TAC asserting that "[v]enue is proper in this District," which are merely conclusions of law. To the extent that a response is required, IBM admits that a data center associated with SoftLayer Technologies, Inc. is located at 1700 Summit Avenue, Plano, Texas 75074. IBM denies that IBM has a regular and established place of business at 1700 Summit Avenue, Plano, Texas 75074. IBM expressly reserves the right to request to seek transfer of venue under 28 U.S.C. §1404(a) in this case and/or contest venue in any other case as to any party.

ADDITIONAL FACTS

10. IBM admits that the quotes in Paragraph 10 appear in a purported publication from "451 Research" that is attached as Exhibit 5 to VirtaMove's TAC. IBM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 10 of the TAC and, therefore, denies them.

11. IBM admits that representatives of IBM had previously met with at least one representative of VirtaMove. IBM denies that it "would have known" that VirtaMove/AppZero marketed and/or advertised their V-Migrate/AppZero software was patented as early as 2011, that it intentionally or willfully blinded itself to whether V-Migrate/AppZero was patented, and that

the technology advertised and marketed by VirtaMove/AppZero "made its way into the Accused Products of IBM." The remainder of Paragraph 11 of the TAC sets out legal conclusions to which no response is necessary. To the extent that a response is required, IBM denies the remaining allegations in Paragraph 11 of the TAC.

COUNT I

INFRINGEMENT OF U.S. PATENT NO. 7,519,814

12. IBM repeats and incorporates by reference as though fully set forth herein each of its prior admissions, denials, and other statements regarding VirtaMove's incorporated allegations from each of the above paragraphs.

13. IBM admits that '814 Patent is titled "System for Containerization of Application Sets" and lists on its face an issuance date of April 14, 2009. IBM admits that an uncertified copy of the '814 Patent is attached to the TAC as Exhibit 1. IBM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 13 of the TAC and, therefore, denies them.

14. IBM admits that its website refers to IBM's Cloud Kubernetes Service. IBM denies the remaining allegations in Paragraph 14 of the TAC.

15. Denied.

16. IBM admits that on or about November 26, 2012, in connection with the prosecution of U.S. Patent No. 8,893,306, the examiner cited the '814 Patent. IBM admits that on or about June 2015, in connection with the prosecution of U.S. Patent No. 9,166,865, the examiner cited U.S. Pub. No. 2005/0060722. IBM denies the remaining allegations in Paragraph 16 of the TAC.

17. Denied.

18. Denied.

19. IBM denies all allegations of infringement contained in this paragraph. IBM admits that Exhibit 2 attached to the TAC purports to be a claim chart, but denies any contention of infringement included in Exhibit 2. IBM admits that VirtaMove's infringement contentions previously asserted apparatus Claim 31 of the '814 Patent, but that the TAC and VirtaMove's purported "Corrected Infringement Contentions" disclaim VirtaMove's assertion of any claims of the '814 Patent other than Claims 1, 2, 6, 9, and 10. IBM denies the remaining allegations in Paragraph 19 of the TAC.

20. Denied.

21. IBM denies all allegations of infringement contained in this paragraph. IBM denies that VirtaMove is entitled to any relief from IBM, including monetary damages, interest, or costs, at least because the claims of the '814 Patent are not valid, enforceable, or infringed, directly or indirectly, by IBM. IBM denies that VirtaMove is entitled to past damages under 35 U.S.C. § 287. IBM denies that VirtaMove has complied with the requirements of 35 U.S.C. § 287 at all relevant times. IBM lacks knowledge and information sufficient to form a belief of the remaining statements in this paragraph, and therefore denies these allegations.

COUNT II

INFRINGEMENT OF U.S. PATENT NO. 7,784,058

22. IBM incorporates by reference as though fully set forth herein each of its prior admissions, denials, and other statements regarding VirtaMove's incorporated allegations from each of the above paragraphs.

23. IBM admits that '058 Patent is titled "Computing System Having User Mode Critical System Elements as Shared Libraries" and lists on its face an issuance date of August 24, 2010. IBM admits that an uncertified copy of the '058 Patent is attached to the TAC as Exhibit 3.

IBM is without knowledge or information sufficient to form a belief as to the truth of the remaining allegations in Paragraph 23 of the TAC and, therefore, denies them.

24. IBM admits that its website refers to IBM's Cloud Kubernetes Service. IBM denies the remaining allegations in Paragraph 24 of the TAC.

25. Denied.

26. IBM admits that U.S. Patent No. 9,176,713 issued on November 3, 2015 and that U.S. Patent No. 7,784,058 and several other U.S. Patents, U.S. Patent Applications, and Other Publications are listed under the "References Cited" section. IBM admits that U.S. Patent No. 9,934,055 issued on April 3, 2018 and that U.S. Patent No. 7,784,058 and several other U.S. Patents, U.S. Patent Applications, and Other Publications are listed under the "References Cited" section. IBM denies all allegations of infringement contained in this paragraph. IBM denies the remaining allegations in Paragraph 26 of the TAC.

27. Denied.

28. Denied.

29. IBM denies all allegations of infringement contained in this paragraph. IBM admits that Exhibit 4 attached to the TAC purports to be a claim chart, but denies any contention of infringement included in Exhibit 4. IBM admits that the TAC and its operative infringement contentions assert Claims 1-4 and 18 of the '058 Patent, and that the TAC disclaims VirtaMove's assertion of any claims of the '058 Patent other than Claims 1-4 and 18. IBM denies the remaining allegations in Paragraph 29 of the TAC.

30. Denied.

31. IBM denies all allegations of infringement contained in this paragraph. IBM denies that VirtaMove is entitled to any relief from IBM, including monetary damages, interest, or costs, at least because the claims of the '058 Patent are not valid, enforceable, or infringed, directly or indirectly,

by IBM. IBM denies that VirtaMove is entitled to past damages under 35 U.S.C. § 287. IBM denies that VirtaMove has complied with the requirements of 35 U.S.C. § 287 at all relevant times. IBM lacks knowledge and information sufficient to form a belief of the remaining statements in this paragraph, and therefore denies these allegations

RESPONSE TO PRAYER FOR RELIEF

WHEREFORE, IBM denies Plaintiff is entitled to any relief that it seeks, and requests that judgment be entered in its favor and prays that the Court grant the following relief:

A. An order enjoining VirtaMove and its officers, agents, servants, employees, attorneys, and those in active concert or participation with them from asserting infringement or instituting or continuing any action for infringement of the Asserted Patents against IBM or its subsidiaries, affiliates, customers (direct or indirect), distributors (direct or indirect), agents (direct or indirect), or contractors (direct or indirect);

B. A declaration that IBM has not infringed and does not infringe, either directly or indirectly, any valid or enforceable claim of United States Patent Nos. 7,519,814 and 7,784,058, either literally or under the Doctrine of Equivalents;

C. A declaration that United States Patent Nos. 7,519,814 and 7,784,058 are invalid for failure to comply with the requirements of Title 35, United States Code, including at least §§ 101, 102, 103, and/or 112;

D. An order declaring that this is an exceptional case, and awarding IBM its costs and reasonable attorney fees under 35 USC ¶ 285; and

E. Such other and further relief as this Court may deem just and proper.

RESPONSE TO DEMAND FOR JURY TRIAL

Pursuant to Fed. R. Civ. P. Rule 38(b), IBM hereby demands a trial by jury on all issues and claims so triable.

AFFIRMATIVE DEFENSES

IBM alleges and asserts the following defenses in response to the allegations of the TAC, undertaking the burden of proof only as to those defenses deemed affirmative defenses by law, regardless of how such defenses are denominated herein. IBM further reserves the right to amend this Answer to add Affirmative Defenses and/or any other defenses currently unknown to IBM, as they become known throughout the course of discovery in this action.

FIRST AFFIRMATIVE DEFENSE

(Failure to State a Claim)

The TAC fails to state a claim upon which relief can be granted.

SECOND AFFIRMATIVE DEFENSE

(No Infringement)

IBM does not infringe any valid and enforceable claim of the Asserted Patents in any manner under 35 U.S.C. § 271 either literally or under the doctrine of equivalents, directly or indirectly, willfully or otherwise. IBM has not performed any act and is not proposing to perform any act in violation of any rights validly belonging to Plaintiff.

THIRD AFFIRMATIVE DEFENSE

(Invalidity)

The asserted claims of the Asserted Patents are invalid for failure to satisfy the requirements of 35 U.S.C. § 100, *et seq.*, including, but not limited to, one or more of the following: 35 U.S.C. §§ 101, 102, 103, 112, and/or 116.

FOURTH AFFIRMATIVE DEFENSE

(Prosecution History Estoppel and/or Disclaimer)

Plaintiff's claims are barred in whole or in part by the doctrines of prosecution history

estoppel and/or prosecution disclaimer.

During the prosecution of the Asserted Patents, the patent application to which the Asserted Patents claim priority (U.S. Patent Application Nos. 10/939,03 (the "'903 Application") and 10/946,536 (the "'536 Application")), and the other patent applications related to the Asserted Patents, the United States Patent and Trademark Office ("USPTO") Examiners made multiple rejections in view of the prior art. The Patentees made arguments, amendments, admissions, representations, and statements during those prosecutions to overcome those rejections and/or gain allowance of the claims.

Plaintiff is estopped from construing the claims of the Asserted Patents to cover or include, either literally or under the doctrine of equivalents, products or methods that were surrendered because of arguments, amendments, admissions, representations, and/or statements made before the USPTO.

FIFTH AFFIRMATIVE DEFENSE

(Ensnarement and/or Claim Vitiation)

Plaintiff's claims are barred or limited in whole or in part by the doctrine of ensnarement and/or claim vitiation.

SIXTH AFFIRMATIVE DEFENSE

(License and/or Exhaustion)

To the extent that Plaintiff has licensed or otherwise exhausted its rights and remedies as to products or services that are accused by way of the TAC, or to products or services that Plaintiff alleges are covered by the Asserted Patents, IBM is not liable to Plaintiff for any alleged acts of infringement related to such products or services.

SEVENTH AFFIRMATIVE DEFENSE

(Limitation on Damages)

Plaintiff's claims for damages are statutorily limited under 35 U.S.C. §§ 286 and 287.

EIGHTH AFFIRMATIVE DEFENSE

(Unenforceability, Equitable Estoppel, and/or Implied License)

Plaintiff's claims are barred as unenforceable in whole or in part by the doctrine of equitable estoppel and/or implied license.

NINTH AFFIRMATIVE DEFENSE

(No Willful Infringement)

IBM has not willfully infringed any of the Asserted Patents. IBM does not, did not, and could not subjectively or objectively believe that it infringes any valid and enforceable claim of the Asserted Patents either literally or under the doctrine of equivalents.

TENTH AFFIRMATIVE DEFENSE

(No Injunctive Relief)

No injunctive relief should be awarded because Plaintiff has not and cannot establish entitlement to such relief, and no factor supporting issuance of such relief is present in this case.

ELEVENTH AFFIRMATIVE DEFENSE

(Equitable Defenses)

Each of VirtaMove's claims is barred, in whole or in part, by the equitable defenses of estoppel, waiver, acquiescence, laches, unclean hands, inequitable conduct and/or any other equitable remedy.

IBM'S COUNTERCLAIMS

For its Counterclaims against Plaintiff, IBM states as follows:

INTRODUCTION

1. IBM is in the innovation business. Every year, IBM spends billions of dollars on research and development to invent, market, and sell new technology. These investments over the decades have led to innovations touching every industry and changing the way the world connects, with foundational advancements in computer hardware and software, big data analytics, artificial intelligence, natural language processing, and cloud computing and network server technologies, including those related to virtualization, containerization, and migration of applications. IBM's commitment to research and development has resulted in numerous inventions that have led to the thousands of patents awarded to IBM by the USPTO each year. In fact, for 29 of the last 30 years, IBM scientists and researchers have been awarded more U.S. patents than those of any other company.

2. IBM also innovates through investment in various organizations dedicated to providing open access to key technologies for others who are working on and contributing to open-source software. For example, IBM was a founding member of the Open Invention Network ("OIN"), the largest patent non-aggression community in history, which supports freedom of action in Linux, a key element of open source software. To carry on and protect that mission, IBM has been assigned patented technologies developed in connection with those organizations, like OIN, that IBM co-founded and helped grow.

3. As a result of these innovations, investments, and collaborations, IBM holds an industry-leading patent portfolio. These include the four Counterclaim Patents, each of which reflect key innovations and improvements to the field of containerization and application migration technologies.

4. VirtaMove chose a different path. Instead of innovating on its own and contributing to the advancement of open-source technology, VirtaMove has sought to profit off the innovations of IBM and others. First, VirtaMove commercialized its V-Migrate and V-Maestro products using critical advancements in containerization and application migration technology covered by IBM's patents. While IBM is a strong proponent of open source technologies, it also believes in the protection of its proprietary technologies, which are a result of decades of research and development and investments into organizations like OIN. VirtaMove has profited and continues to unfairly profit from those IBM innovations and investments by selling products containing IBM's technology. Second, in using its patents to target open-source Kubernetes technology used by IBM and others, VirtaMove seeks to profit off technology it did not invent and did not contribute to. IBM's Cloud Kubernetes Service does not practice what is claimed in VirtaMove's '814 and '058 Patents; and VirtaMove was only able to acquire its patents by withholding material information in order to deceive the USPTO.

5. Accordingly, IBM brings these counterclaims to hold VirtaMove to account for its flawed claims of infringement, its deception on the Patent Office, and its years of profiting off the IBM technology contained in the V-Migrate and V-Maestro products.

NATURE OF THE ACTION

6. This is an action for patent infringement against VirtaMove for infringement of United States Patent Nos. 9,722,858 (the "'858 Patent"), 9,697,038 (the "'038 Patent"), 10,606,634 (the "'634 Patent"), and 8,943,500 (the "'500 Patent") (collectively, the "Counterclaim Patents"), arising under the patent laws of the United States 35 U.S.C. § 1 et seq. and under the Declaratory Judgment Act, 28 U.S.C. § 2201 et seq.

7. This action arises out of VirtaMove's past, current, and/or imminent manufacture, use, sale, offer for sale within the United States, and/or importation into the United States, of VirtaMove's products V-Migrate and V-Maestro (collectively, the "Accused VirtaMove Products") prior to expiration of the Counterclaim Patents.

PARTIES

8. IBM is a corporation organized and existing under the laws of New York, having a principal place of business at One New Orchard Road, Armonk, New York 10504.

9. VirtaMove represents in the TAC that it is a corporation organized and existing under the laws of Canada, with its principal place of business at 110 Didsbury Road, M083, Ottawa, Ontario K2T 0C2.

10. VirtaMove also maintains an office location at 300 Brickstone Square, Suite 201, Andover, MA 01810.

JURISDICTION AND VENUE

11. This action arises under the patent laws of the United States, 35 U.S.C. §§ 100 et seq., generally, and 35 U.S.C. § 271, specifically, and this Court has jurisdiction over the subject matter of this action pursuant to the provisions of 28 U.S.C. §§ 1331, 1338(a), and the Declaratory Judgment Act §§ 2201, 2202.

12. This Court has personal jurisdiction over VirtaMove at least because VirtaMove has availed itself of the rights and privileges, and has subjected itself to the jurisdiction of this forum by suing IBM, and others, in this District.

13. For the limited and sole purpose of IBM's counterclaims, venue is proper in this District because VirtaMove has availed itself of the rights and privileges, and has subjected itself to the jurisdiction of this forum by suing IBM, and others, in this District. Additionally, IBM's

counterclaims relating to unenforceability of the Asserted Patents arise out of the same transaction or occurrence as VirtaMove's claims against IBM.

14. IBM does not waive any challenges to venue as to the claims that VirtaMove has asserted against IBM, and IBM does not waive any challenges to or otherwise concede the convenience of the present forum.

FACTUAL BACKGROUND

Counterclaim Patents

15. The '858 Patent, entitled "Management Infrastructure Analysis for Cloud Migration," is directed to a method for analyzing and preparing a source computing system's infrastructure for migration to a cloud environment, specifically identifying compatibility and potential conflicts with target cloud infrastructures. The '858 Patent is further directed to discovering source infrastructure management components, obtaining detailed descriptions of target cloud infrastructures, and assessing compatibility to ensure successful migration.

16. The '858 Patent was invented by Matthew A. Markley, Amitkumar M. Paradkar, Venkata Vinay Parisa, and Birgit M. Pfitzmann and issued on August 1, 2017. The application for the '858 Patent is a continuation of application No. 13/689,500, filed on November 29, 2012. IBM owns all rights, title, and interest in the '858 Patent. The '858 Patent is assigned to IBM. A copy of the '858 Patent is attached to IBM's Answer and Counterclaims as Exhibit 1.

17. The '858 Patent is valid and enforceable.

18. The '038 Patent, entitled "System and Method for Application Isolation," discloses a system for managing isolated environments in computing systems. This patent specifically addresses the dynamic creation, updating, and removal of resources for applications within these isolated environments. The invention ensures that resource requests by applications are

appropriately managed to maintain the integrity and functionality of the isolated environments. The ’038 Patent provides a technological solution to efficiently manage resources in virtualized or containerized environments, providing seamless operation and preventing resource conflicts.

19. The ’038 Patent is valid and enforceable.

20. The ’634 Patent, entitled “System and Method for Application Isolation,” similarly discloses a system for managing isolated environments in computing systems. This patent provides the ability for isolated environments to dynamically create, update, and remove resource mappings. The patent outlines specific processes for managing resource requests and allocations in isolated environments, ensuring that applications can access necessary resources without conflict. This technological improvement enhances the performance and reliability of applications running in virtualized or containerized environments, addressing specific issues related to resource management and ensuring that applications can operate efficiently and securely within their designated environments.

21. The ’634 Patent is valid and enforceable.

22. The ’500 Patent, entitled “System and Method for Application Isolation,” similarly discloses a system for managing isolated environments in computing systems. The patent covers the steps of dynamically creating, updating, and removing resource mappings based on application lifecycle events, such as installation, execution, and uninstallation. It emphasizes maintaining the operational integrity of isolated environments by ensuring that resource mappings are appropriately handled and accessible for retrieval. This technological improvement enhances the performance and reliability of applications running in virtualized or containerized environments, addressing specific issues related to resource management and ensuring that applications can operate efficiently and securely within their designated environments.

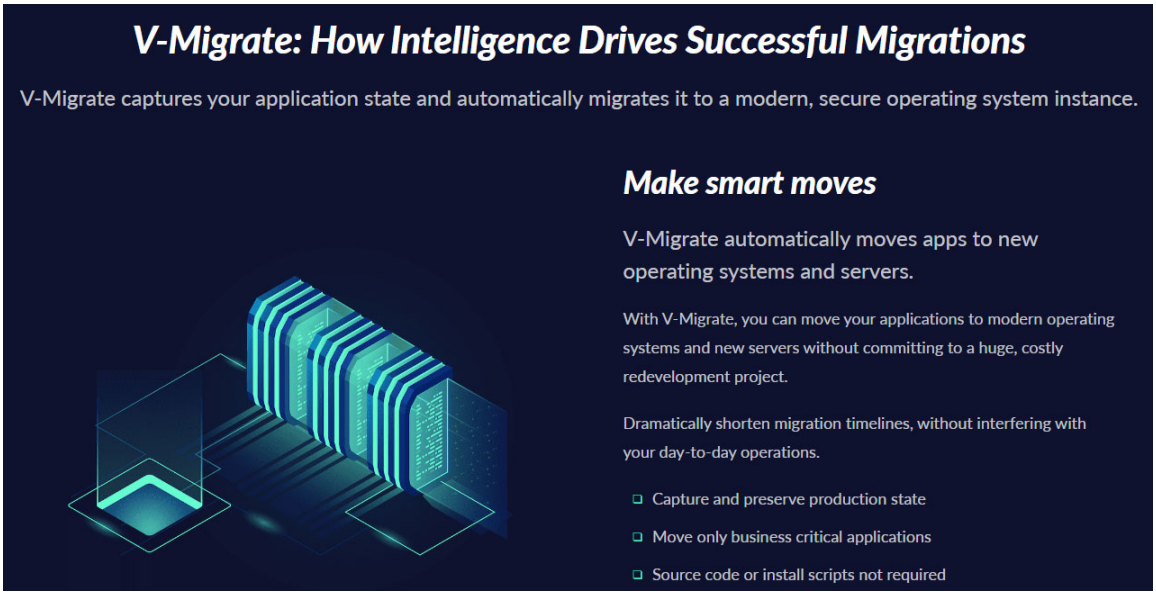
23. The ’500 Patent is valid and enforceable.

24. Each of the applications leading to the ’038, ’634, and ’500 Patents are continuation applications of U.S. Patent Application No. 12/421,691, filed on April 10, 2009, now U.S. Patent No. 8,341,631. The ’038, ’634, and ’500 Patents were invented by Allan Havemose. A copy of each of the ’038, ’634, and ’500 Patents is attached to IBM’s Answer and Counterclaims as Exhibits 2, 3, and 4, respectively. On August 22, 2022, each of the ’038, ’634, and ’500 Patents were assigned to IBM and IBM owns all rights, title, and interest in the ’038, ’634, and ’500 Patents.

VirtaMove’s Infringing Products

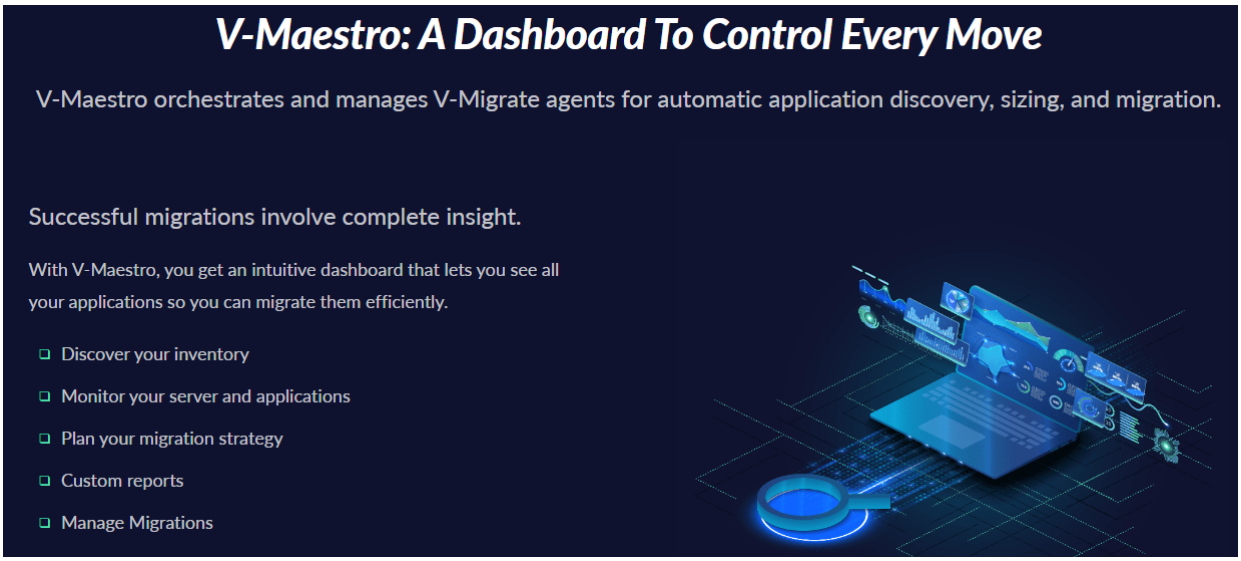
25. VirtaMove develops, manufactures, sells, offers for sale, and/or licenses at least two products that infringe the Counterclaim Patents: V-Migrate and V-Maestro (collectively, the “Accused VirtaMove Products”).

26. VirtaMove describes V-Migrate as a product that “captures your application state and automatically migrates it to a modern, secure operating system instance.”



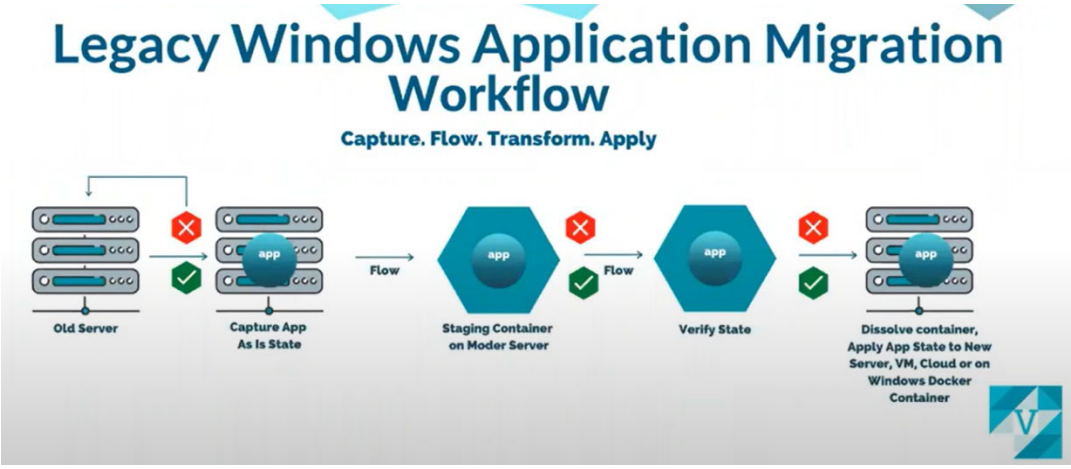
See https://virtamove.com/migration-software/v-migrate/. V-Migrate was released at least by 2016, but other versions of the product were available by 2008 through VirtaMove's predecessor company AppZero.

27. VirtaMove describes V-Maestro as a product that "orchestrates and manages V-Migrate agents for automatic application discovery, sizing, and migration."



See https://virtamove.com/v-maestro/. V-Maestro was released at least by 2016.

28. VirtaMove markets its V-Migrate and V-Maestro products for migrating applications from old, legacy servers to newer, modern servers, virtual machines, Windows containers, or cloud environments. At a high level, that migration workflow begins with the creation of an isolated environment ("container") for capturing applications and support services to be migrated. Then, through VirtaMove's "Tether" feature, applications are staged, exercised, and verified, a key feature using IBM's patented technology that ensures that all necessary resources are updated into the container for migration. Lastly, the container is "dissolved," and the application is installed on the new server, virtual machine, or cloud environment.



See https://www.youtube.com/watch?v=hDb541Ax6xw ("Webinar on Red Hat Enterprise Linux 5 Application Migration").

29. Moreover, as part of the pre-migration process, the Accused VirtaMove Products include features that discover and monitor clients, servers, applications, configurations, and other relevant data about the older computing system that the application is being migrated from (called a "source"). For example, VirtaMove "Source Monitor" monitors how an application is running on a source machine, providing a list of data, such as application components, services, dependencies, and registry keys, to be automatically captured and migrated to a destination machine. Furthermore, V-Maestro discovers all servers running on a local network that have a Source Agent installed.

30. The Accused VirtaMove Products also discover destinations to which migration may potentially occur. After discovering destinations, the Accused VirtaMove Products provide detailed information about the destinations, including but not limited to, system information, storage profile, migration status, services, accounts, and applied patches.

31. The Accused VirtaMove Products also include features to perform an "Audit" and verify whether any issues will prevent migration between source and destination machines. For

example, the "Audit" feature can assess CPU types, disk configuration, firewalls, group policies, operating systems, and ports.

32. The Accused VirtaMove Products also offer the "Tether Sync" feature, which allows a container to be populated with files and registry keys and then updated later, including during the running and exercising the migrated application. Moreover, the Accused VirtaMove Products create a "Config-on-the-Fly" ("COTF") file. The COTF file is automatically created in a container's COTF folder and defines how files and registry items being tethered from the source machine will be configured on the destination machine. The COTF file facilitates compatibility between the container and the destination machine, for example, by replacing source machine identification information with destination machine identification information.

33. After migration of a container to a destination machine, the Accused VirtaMove Products "dock" the container, which integrates the container environment as part of the underlying operating system. Once docked, the Accused VirtaMove Products provide mechanisms for managing the container, such as the container services. For example, the Accused VirtaMove Products can list container services and even start, stop, or remove said services. If a container is no longer required, the Accused VirtaMove Products can also delete the container. Indeed, VirtaMove advises against using operating system commands to delete the container.

34. Although an application is capable of running in a container environment, the Accused VirtaMove Products offer the "Dissolve" function, which removes the container from the application and transfers the application to the underlying operating system on the destination machine, allowing the application to behave as if natively installed.

35. As detailed in the infringement charts attached as Exhibits 9-12, the Accused VirtaMove Products, including at least VirtaMove's V-Migrate and V-Maestro products, infringe IBM's patented technology through the use of these critical features and functionalities.

COUNT 1: INFRINGEMENT OF U.S. PATENT NO. 9,722,858

36. IBM realleges Paragraphs 1-35 as if fully set forth herein.

37. Claim 1 of the '858 Patent recites:

> A non-transitory computer readable medium comprising computer executable instructions which when executed by a computer cause the computer to perform the method of:
>
> [a] discovering, in a source computing system having a source management infrastructure, at least one source infrastructure management component, wherein said at least one source infrastructure management component is an instance of an image, and wherein said at least one source infrastructure management components is running in a customer environment;
>
> [b] querying a database to obtain a description of a target cloud infrastructure;
>
> [c] analyzing said at least one source infrastructure management component using said description of said target cloud infrastructure to determine that said at least one source infrastructure management component is appropriate for infrastructure configuration mapping to said target cloud infrastructure; stopping an application executing on said at least one source infrastructure management component determined appropriate for infrastructure configuration mapping; and
>
> [d] capturing said at least one source infrastructure management component determined appropriate for infrastructure configuration mapping for migration to said target cloud infrastructure.

38. As detailed in Exhibit 9, the Accused VirtaMove Products satisfy each and every limitation of Claims 1–19 of the '858 Patent, either literally and/or under the doctrine of equivalents.

39. By making, using, offering for sale, selling, and/or importing the Accused VirtaMove Products in and into the United States, VirtaMove has injured IBM and is liable for infringement of the '858 Patent pursuant to 35 U.S.C. § 271.

40. VirtaMove also knowingly and intentionally induces infringement of claims of the '858 patent in violation of 35 U.S.C. § 271(b). VirtaMove has had knowledge of the '858 Patent and the infringing nature of the Accused VirtaMove Products at least as early as the filing of this pleading. Despite this knowledge of the '858 Patent, VirtaMove continues to actively encourage and instruct its customers and end users—through, for example, guides, instruction manuals, and tutorials—to use the Accused VirtaMove Products in ways that directly infringe the '858 Patent. VirtaMove does so knowing and intending that its customers and end users will commit these infringing acts. VirtaMove also continues to make, use, offer for sale, sell, and/or import the Accused VirtaMove Products, despite its knowledge of the '858 Patent, thereby specifically intending for and inducing its customers to infringe the '858 Patent through the customers' normal and customary use of the Accused VirtaMove Products.

41. VirtaMove has also infringed, and continues to infringe, claims of the '858 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused VirtaMove Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. VirtaMove knows the components in the Accused VirtaMove Products to be especially made or especially adapted for use in infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial non-infringing use. Accordingly, VirtaMove has been, and currently is, contributorily infringing the '858 Patent, in violation of 35 U.S.C. § 271(c).

42. VirtaMove makes, manufactures, sells, offers to sell, and/or licenses the Accused VirtaMove Products with the intent, or willful blindness, that the acts directly infringe the '858 Patent. VirtaMove's infringement therefore constitutes willful infringement.

43. VirtaMove's acts of infringement, unless restrained and enjoined, will continue to cause irreparable injury and damage to IBM for which there is no adequate remedy at law.

44. As a result of VirtaMove's infringement, IBM is further entitled to monetary damages in an amount adequate to compensate for VirtaMove's infringement, but in no event less than a reasonable royalty for the use made of the invention by VirtaMove, together with interest and costs as fixed by the Court.

45. This is an exceptional case within the meaning of 35 U.S.C. § 285, which warrants reimbursement of IBM's reasonable attorney fees.

COUNT 2: INFRINGEMENT OF U.S. PATENT NO. 9,697,038

46. IBM realleges Paragraphs 1–35 as if fully set forth herein.

47. Claim 1 of the '038 Patent recites:

> A system, comprising:
>
> [a] one or more central processing units; and
>
> [b] one or more isolated environments including one or more applications;
>
> [c] wherein the one or more central processing units and the one or more isolated environments are configured to interact with each other;
>
> [d] wherein the one or more isolated environments are created during installation of the one or more applications;
>
> [e] wherein updates to the one or more isolated environments occur as the one or more applications use additional resources; and

> [f] wherein the one or more isolated environments are copied to storage and then removed as part of an uninstall of the one or more applications.

48. As detailed in Exhibit 10, the Accused VirtaMove Products satisfy each and every limitation of Claims 1-20 of the '038 Patent, either literally and/or under the doctrine of equivalents.

49. By making, using, offering for sale, selling, and/or importing the Accused VirtaMove Products in and into the United States, VirtaMove has injured IBM and is liable for infringement of the '038 Patent pursuant to 35 U.S.C. § 271.

50. VirtaMove also knowingly and intentionally induces infringement of claims of the '038 patent in violation of 35 U.S.C. § 271(b). VirtaMove has had knowledge of the '038 Patent and the infringing nature of the Accused VirtaMove Products at least as early as the filing of this pleading. Despite this knowledge of the '038 Patent, VirtaMove continues to actively encourage and instruct its customers and end users—through, for example, guides, instruction manuals, and tutorials—to use the Accused VirtaMove Products in ways that directly infringe the '038 Patent. VirtaMove does so knowing and intending that its customers and end users will commit these infringing acts. VirtaMove also continues to make, use, offer for sale, sell, and/or import the Accused VirtaMove Products, despite its knowledge of the '038 Patent, thereby specifically intending for and inducing its customers to infringe the '038 Patent through the customers' normal and customary use of the Accused VirtaMove Products.

51. VirtaMove has also infringed, and continues to infringe, claims of the '038 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused VirtaMove Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. VirtaMove knows the components in the Accused VirtaMove Products to be especially made or especially adapted for use in

infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial non-infringing use. Accordingly, VirtaMove has been, and currently is, contributorily infringing the '038 Patent, in violation of 35 U.S.C. § 271(c).

52. VirtaMove makes, manufactures, sells, offers to sell, and/or licenses the Accused VirtaMove Products with the intent, or willful blindness, that the acts directly infringe the '038 Patent.

53. VirtaMove's acts of infringement, unless restrained and enjoined, will continue to cause irreparable injury and damage to IBM for which there is no adequate remedy at law.

54. As a result of VirtaMove's infringement, IBM is further entitled to monetary damages in an amount adequate to compensate for VirtaMove's infringement, but in no event less than a reasonable royalty for the use made of the invention by VirtaMove, together with interest and costs as fixed by the Court.

55. This is an exceptional case within the meaning of 35 U.S.C. § 285, which warrants reimbursement of IBM's reasonable attorney fees.

COUNT 3: INFRINGEMENT OF U.S. PATENT NO. 10,606,634

56. IBM realleges Paragraphs 1–35 as if fully set forth herein.

57. Claim 1 of the '634 Patent recites:

> A system, comprising:
>
> [a] one or more central processing units;
>
> [b] one or more isolated environments including one or more applications; and
>
> [c] one or more resource mappings between resources as requested by the one or more applications and the corresponding resources inside said isolated environments;

> [d] wherein the one or more central processing units and the one or more isolated environments are configured to interact with each other;
>
> [e] wherein a resource mapping for an application is created or updated during one or more of installing said application in an isolated environment, running said application is said isolated environment, or accessing a resource corresponding to said resource mapping; and
>
> [f] wherein a resource mapping for an application is removed or updated during one or more of uninstalling said application, deleting a resource corresponding to said resource mapping, archiving at least one of the one or more isolated environments, or copying an isolated environment to a new location.

58. As detailed in Exhibit 11, the Accused VirtaMove Products satisfy each and every limitation of Claims 1-20 of the '634 Patent, either literally and/or under the doctrine of equivalents.

59. By making, using, offering for sale, selling, and/or importing the Accused VirtaMove Products in and into the United States, VirtaMove has injured IBM and is liable for infringement of the '634 Patent pursuant to 35 U.S.C. § 271.

60. VirtaMove also knowingly and intentionally induces infringement of claims of the '634 Patent in violation of 35 U.S.C. § 271(b). VirtaMove has had knowledge of the '634 Patent and the infringing nature of the Accused VirtaMove Products at least as early as the filing of this pleading. Despite this knowledge of the '634 Patent, VirtaMove continues to actively encourage and instruct its customers and end users—through, for example, guides, instruction manuals, and tutorials—to use the Accused VirtaMove Products in ways that directly infringe the '634 Patent. VirtaMove does so knowing and intending that its customers and end users will commit these infringing acts. VirtaMove also continues to make, use, offer for sale, sell, and/or import the Accused VirtaMove Products, despite its knowledge of the '634 Patent, thereby specifically

intending for and inducing its customers to infringe the '634 Patent through the customers' normal and customary use of the Accused VirtaMove Products.

61. VirtaMove has also infringed, and continues to infringe, claims of the '634 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused VirtaMove Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. VirtaMove knows the components in the Accused VirtaMove Products to be especially made or especially adapted for use in infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial non-infringing use. Accordingly, VirtaMove has been, and currently is, contributorily infringing the '634 Patent, in violation of 35 U.S.C. § 271(c).

62. VirtaMove makes, manufactures, sells, offers to sell, and/or licenses the Accused VirtaMove Products with the intent, or willful blindness, that the acts directly infringe the '634 Patent.

63. VirtaMove's acts of infringement, unless restrained and enjoined, will continue to cause irreparable injury and damage to IBM for which there is no adequate remedy at law.

64. As a result of VirtaMove's infringement, IBM is further entitled to monetary damages in an amount adequate to compensate for VirtaMove's infringement, but in no event less than a reasonable royalty for the use made of the invention by VirtaMove, together with interest and costs as fixed by the Court.

65. This is an exceptional case within the meaning of 35 U.S.C. § 285, which warrants reimbursement of IBM's reasonable attorney fees.

COUNT 4: INFRINGEMENT OF U.S. PATENT NO. 8,943,500

66. IBM realleges Paragraphs 1–35 as if fully set forth herein.

67. Claim 1 of the ’500 Patent recites:

> A system, comprising:
>
> [a] one or more central processing units; and
>
> [b] one or more isolated environments including one or more applications and executables;
>
> [c] wherein the one or more central processing units and the one or more isolated environments are configured to interact with each other;
>
> [d] wherein the one or more isolated environments are created during installation of the one or more applications, and updates to the one or more isolated environments occur as the one or more applications use additional resources;
>
> [e] wherein the one or more isolated environments are removed as part of an uninstall of the one or more applications;
>
> [f] wherein the one or more isolated environments are stored for retrieval at a later time after the uninstall of the one or more applications.

68. As detailed in Exhibit 12, the Accused VirtaMove Products satisfy each and every limitation of a Claims 1-20 of the ’500 Patent, either literally and/or under the doctrine of equivalents.

69. By making, using, offering for sale, selling, and/or importing the Accused VirtaMove Products in and into the United States, VirtaMove has injured IBM and is liable for infringement of the ’500 Patent pursuant to 35 U.S.C. § 271.

70. VirtaMove also knowingly and intentionally induces infringement of claims of the ’500 Patent in violation of 35 U.S.C. § 271(b). VirtaMove has had knowledge of the ’500 Patent and the infringing nature of the Accused VirtaMove Products at least as early as the filing of this pleading. Despite this knowledge of the ’500 Patent, VirtaMove continues to actively encourage and instruct its customers and end users—through, for example, guides, instruction manuals, and

tutorials—to use the Accused VirtaMove Products in ways that directly infringe the '500 Patent. VirtaMove does so knowing and intending that its customers and end users will commit these infringing acts. VirtaMove also continues to make, use, offer for sale, sell, and/or import the Accused VirtaMove Products, despite its knowledge of the '500 Patent, thereby specifically intending for and inducing its customers to infringe the '500 Patent through the customers' normal and customary use of the Accused VirtaMove Products.

71. VirtaMove has also infringed, and continue to infringe, claims of the '500 Patent by offering to commercially distribute, commercially distributing, making, and/or importing the Accused VirtaMove Products, which are used in practicing the process, or using the systems, of the patent, and constitute a material part of the invention. VirtaMove knows the components in the Accused VirtaMove Products to be especially made or especially adapted for use in infringement of the patent, not a staple article, and not a commodity of commerce suitable for substantial non-infringing use. Accordingly, VirtaMove has been, and currently is, contributorily infringing the '500 Patent, in violation of 35 U.S.C. § 271(c).

72. VirtaMove makes, manufactures, sells, offers to sell, and/or licenses the Accused VirtaMove Products with the intent, or willful blindness, that the acts directly infringe the '500 Patent.

73. VirtaMove's acts of infringement, unless restrained and enjoined, will continue to cause irreparable injury and damage to IBM for which there is no adequate remedy at law.

74. As a result of VirtaMove's infringement, IBM is further entitled to monetary damages in an amount adequate to compensate for VirtaMove's infringement, but in no event less than a reasonable royalty for the use made of the invention by VirtaMove, together with interest and costs as fixed by the Court.

75. This is an exceptional case within the meaning of 35 U.S.C. § 285, which warrants reimbursement of IBM's reasonable attorney fees.

COUNT 5: DECLARATION OF UNENFORCEABILITY OF U.S. PATENT NO. 7,519,814 BASED ON INEQUITABLE CONDUCT

76. IBM realleges Paragraphs 1–35 as if fully set forth herein.

77. During the prosecution of the '814 Patent, a counterpart application with identical claims was filed and prosecuted before the European Patent Office ("EPO"). Despite significant amendments to that application—including the addition of claim limitations that were purportedly "important" to the enablement of the claimed invention—as well as lengthy argument attempting to explain why the claimed invention was not already disclosed in the prior art, the EPO rejected the '814 Patent's European counterpart on four separate occasions. Following these serial rejections, the patentee abandoned the European Counterpart Application. Yet Applicants for the '814 Patent never once disclosed these rejections to the USPTO; nor did they disclose to the USPTO the EPO's detailed reasoning for those rejections, or the characterizations of the invention submitted to the EPO. For at least the reasons set forth below, and upon information and belief, the '814 Patent is unenforceable as a result of inequitable conduct before the USPTO by Applicants and others associated with and substantively involved in the prosecution of those patents.

78. The individuals substantively involved with the filing and prosecution of the '814 Patent owed duties of disclosure under 37 C.F.R. § 1.56 and include, for example, at least the applicants—*i.e.*, named inventors Donn Rochette, Paul O'Leary, and Dean Huffman—as well as others substantively involved with the prosecution, including Charles E. Wands and Christopher F. Regan. A violation of this duty of disclosure can result in a finding of inequitable conduct. *Therasense, Inc. v. Becton, Dickinson & Co.*, 649 F.3d 1276, 1285 (Fed. Cir. 2011) (*en banc*).

"[I]nequitable conduct regarding any single claim renders the entire patent unenforceable." *Id.* at 1288.

79. The '814 Patent is unenforceable because, on information and belief, during prosecution of Application No. 10/939,903 (the "'814 Application"), which led to the '814 Patent, Applicants and others substantively involved with the prosecution of the '814 Patent, committed inequitable conduct by failing to disclose to the USPTO materials relating to proceedings concerning the European Counterpart Application to the '814 Patent.

80. Applicants and others substantively involved with the prosecution of the '814 Patent were aware of the various representations made to the EPO, amendments made to the claims of the European Counterpart Application, and the multiple rejections to the application and accompanying explanations made by the EPO. For example, on October 17, 2005, before the EPO issued its first rejection of the European counterpart application, Mr. Wands submitted an information disclosure statement to the USPTO which checked a box that the reference contained in the statement "was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior." As detailed below, this reference is the same reference that the EPO had cited in its September 7, 2005 communication in the European counterpart prosecution, confirming that prosecution counsel for the '814 Patent, including Mr. Wands, were aware of the foreign counterpart prosecution and informed of communications from the EPO during that foreign counterpart prosecution.

81. On information and belief, at least named inventor Mr. Rochette was still employed by the common applicant, Trigence Corp., through May 2009 when these statements were made.

82. Applicants and others substantively involved with the prosecution of the '814 Patent had knowledge that statements made during prosecution of the '814 Patent's European

counterpart were material to the patentability of the claimed invention, yet they failed to disclose those statements and prosecution history documents during prosecution by intentionally withholding and concealing them with the specific intent to mislead or deceive the USPTO, and thereby wrongly secured the '814 Patent that otherwise would not have issued but for their misconduct.

Summary of the Parallel European USPTO Prosecutions

83. The '814 Application was filed with the USPTO on September 13, 2004.

84. Two days later, on September 15, 2004, Applicants filed a European counterpart application to the '814 Patent (Application No. 04021916), which published as EP1515229 on March 16, 2005 (collectively, the "European Counterpart Application"). The European Counterpart Application included identical independent claims to the '814 Application.

85. On September 7, 2005, the European Patent Office ("EPO") issued a search report, which identified U.S. Publication No. 2002/174215 A1 ("Schaefer") as relevant prior art.

86. On October 17, 2005, Applicants submitted an Information Disclosure Statement ("IDS") to the USPTO, which identified Schaefer, checking a box indicating "that each item of information contained in this statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement." Exhibit 13 ('814 Prosecution History) at 64 (Information Disclosure Statement (IDS) Form (SB08)).

87. On May 5, 2006, the EPO issued its first rejection in view of Schaefer ("EPO First Rejection"). The EPO noted that the only difference between proposed Claim 1 of the European counterpart "is that the application's identity comprises one or more network parameters," but concluded that the incorporation of these network parameters were "widely used" in the art and

"common practice used to identify resources (including services) across global networks" and thus was obvious to a person of skill in the art.

88. On August 18, 2006, Applicants submitted a reply to the EPO's First Rejection amending Claims 1–17, and presented arguments in an attempt to distinguish Schaefer from the claimed invention.

89. On November 23, 2007, the EPO issued a second rejection in view of Schaefer ("EPO Second Rejection"). In conclusion, the EPO noted that "[a]t least some of the objections raised above are such that there appears to be no possibility of overcoming them by amendment."

90. On November 28, 2006, Applicants submitted an IDS to the USPTO, listing four patent publications. *See* Exhibit 13 ('814 Prosecution History) at 68 (Information Disclosure Statement (IDS) Form (SB08)).

91. Applicants did not submit the EPO's First Rejection, Applicants Reply to the EPO's First Rejection, or the EPO's Second Rejection to the USPTO.

92. On March 31, 2008, Applicants submitted a reply to the EPO's Second Rejection, further attempting to distinguish Schaefer from the claimed invention.

93. On June 3, 2008, the EPO issued a third rejection in view of Schaefer ("EPO Third Rejection"). The EPO stated that the Applicants' arguments merely pointed to features that were "common practice" in the prior art and that at least one of the proposed independent claims likewise included features that were "common practice" in the field and that the claimed technology was "not inventive."

94. On June 3, 2008, the USPTO issued a Non-Final Rejection under 35 U.S.C. §102(b) in view of U.S. Patent No. 6,381,742 ("Forbes"). *See* Exhibit 13 ('814 Prosecution History) at 239–40 (6/3/2008 Non-Final Rejection).

95. On September 3, 2008, Applicants amended the '814 Application claims with the USPTO, and submitted a response in an attempt to distinguish Forbes from the claimed invention. *See* Exhibit 13 ('814 Prosecution History) at 289–336 (9/3/2008 Amendment/Request for Reconsideration After Non-Final Rejection).

96. On October 2, 2008, Applicants submitted a reply to the EPO's Third Rejection, further amending the claims and attempting to distinguish Schaefer from the claimed invention.

97. On December 10, 2008, the USPTO issued a notice of allowance of the '814 Application.

98. On January 26, 2009, the EPO issued its fourth rejection in view of Schaefer, rejecting Applicants' attempts to distinguish the claimed invention in view of Schaefer.

99. The USPTO's issue notification for the '814 Patent was filed on March 25, 2009, with an issue date of April 14, 2009.

100. Applicants abandoned prosecution of the European Counterpart Application and on September 9, 2009, the EPO deemed the European Counterpart Application withdrawn.

101. Applicants did not submit any of the EPO rejections or correspondence to the USPTO during prosecution of the '814 Application.

Material Misrepresentations And Omissions To The USPTO Regarding The Required Unique Identity Of The Claimed Containers

102. During the prosecution of the European Counterpart Application, Applicants made representations to the EPO about certain features that were important parts of the claimed invention, distinguished the claimed invention from the prior art, and enabled the claimed invention. While these purportedly key and enabling features were added to the claims of the EPO

application, Applicants withheld these statements from the USPTO and did not amend the independent claims at the USPTO to include these key and enabling features for the '814 Application. Those omissions were material to the patentability of the '814 Patent.

103. For example, in Applicants' August 18, 2006 reply to the EPO's First Rejection, Applicants amended independent Claim 1 in an attempt to distinguish Schaefer, and stated to the EPO that "[n]ew claim 1 has been clarified to reflect the differences between [Schaefer] and the present invention more precisely." Exhibit 14 (EPO File History) at 148. For example, Applicants amended independent Claim 1 as shown below (bold):

> 1. In a system having a plurality of servers **(10a, 10b)** with operating systems that differ, operating in disparate computing environments, wherein each server includes a processor **(13)** and an operating system including a kernel **(12)**, a set of associated local system files compatible with the processor **(13)**, a method of providing at least some of the servers in the system with secure, executable, applications **(21a-f)** related to a service, wherein the **executable** applications **(21a-21f)** may be executed in a secure environment, wherein the **executable** applications **(21a-21f)** each include an object executable by at least some of the different operating systems for performing a task related to the service, the method comprising the steps of:
> storing in memory accessible to at least some of the servers a plurality of secure containers **(20a-20c)** of application software **(21a-21f)**, each container **(20a-20c) of application software having its own unique identity and** comprising one or more of the executable applications **(21a-21f)** and a set of associated system files required to execute the one or more applications **(21a-21f)**, for use with a local kernel **(12)** residing permanently on one of the servers; wherein the set of associated system files are compatible with a local kernel **(12)** of at least some of the plurality of different operating systems, the containers **(20a-20c)** of application software excluding a kernel, and wherein some or all of the associated system files within a container stored in memory are utilized in place of the associated local system files resident on the server prior to said storing step **so that executable applications can execute in conjunction with an operating system that said executable application is not originally intended to operate with and would otherwise not function properly, and wherein application software (21a-21f) has an identity of a container that it is associated with**.

104. Applicants further explained that "the present invention as defined by new claim 1 differs from … [Schaefer]" because of the added requirement that "a unique identifier identifies each container and the application associated therewith," arguing that "[n]o such unique identifier for both the container and the application associated therewith is disclosed in [Schaefer]." *Id.* at 148. Applicants later explained that "in accordance with new claim 1, … a unique identity is provided to each of the plurality of the containers. An application executing in the container environment uses the identity of the container as opposed to the identity that would otherwise be provided by the operating system." *Id.* at 152.

105. Applicants further argued that new Claim 1 was inventive, by stating that Claim 1 "provides the possibility of running applications on different operating systems even if the respective application was not designed to run on a specific operating system originally. ***In order to achieve this,*** the present invention uses containers, wherein executable applications are associated with containers and ***share a unique identity with these containers so that they may be attributed to the correct container without problems***." *Id.* at 149.

106. Additionally, in Applicants' March 31, 2008 reply to the EPO's Second Rejection, applicants further argued that "***Claim 1 defines that each container of application software has its own unique identity***, and that the application software has an identity of a container that it is associated with, which differs significantly from the feature identified in the above-referenced Official Communication." *Id.* at 171–72. Applicants further explained that "***[m]oreover, these features are indeed <u>important for the capability of the instant invention</u> to make it possible for applications to be executed on an operating system for which they were not intended or programmed***." *Id.* at 172. Applicants further asserted that "[i]t is all of these features that together allow an application to run under an operating system for which the application was not intended

to run" and "***[t]he invention defines that each container of application software, a unique application object, has its own unique identity***." *Id.* at 173. Applicants expressly argued "[a]s is clearly and succinctly illustrated above, the invention defined in the claims of the instant application provides secure containers of application software ***which each have a unique identifier*** and which each have the required files as defined in the claims, ***so as to be operable on different operating systems for which the application was not originally intended to run***." *Id.* at 173. Applicants relied on this requirement in an attempt to distinguish Schaefer, arguing "[t]he ability for a secure container of application software to utilize its own unique network identity where that identity is independent of the OS is not defined in prior art nor in [Schaefer]." *Id.* at 175.

107. The above statements to the EPO were material to the patentability of the '814 Patent, as Applicants confirmed that in order to achieve the claimed invention, "executable applications are associated with containers and share a unique identity with these containers…." Exhibit 14 (EPO File History) at 149. Applicants' narrowing amendment to independent claim 1 of the EPO application is consistent with this representation, in that it requires "each container … of application software having its own unique identity" and "wherein application software … has an identity of a container that it is associated with." *Id.* at 162. Applicants expressly characterized this feature as "***important*** for the capability of the instant invention," in order to allow for the claimed solution. *Id*. However, Applicants never disclosed these statements to the USPTO, and did not amend independent Claim 1 of the '814 Application to match what Applicants represented was an important enabling feature of their claimed invention.

108. Because independent Claim 1 of the '814 Patent does not require each container to have its own unique identity, which Applicants unequivocally stated to the EPO was "important"

for the capability of the present invention, Applicants unlawfully broadened the scope of the '814 Patent to the USPTO. Indeed, dependent Claim 6 (which depends from Claim 2, which depends from independent Claim 1) of the '814 Patent explicitly adds a limitation "assigning a unique associated identity to each of the plurality of the containers, wherein the identity includes at least one of IP address, host name, and MAC address." '814 Patent, Claim 6. Yet Claim 1 does not require that each container have a unique identity. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) ("As this court has frequently stated, the presence of a dependent claim that adds a particular limitation raises a presumption that the limitation in question is not found in the independent claim.").

109. On information and belief, if the statements to the EPO detailing what Applicants actually believed they invented had been disclosed to the USPTO, the claims of the '814 Patent would not have issued as they presently exist.

110. For instance, the requirements of patentability include that the patented invention be fully enabled so that a person of ordinary skill in the art can use the full scope of the claimed invention. Applicants' statements to the EPO and corresponding amendments are thus material to the patentability requirements of 35 U.S.C. §§ 101 and 112 because Applicants' statements to the EPO support a finding that Claim 1 of the '814 Patent is not fully enabled, as it does not have the requirement that each container have a unique identity, a feature Applicants unequivocally represented was an important part of the invention.

111. On information and belief, the material admissions set forth in the statements to the EPO were withheld from the USPTO with the intent to deceive the Examiner into allowing the claims of the '814 Patent to issue without the requirement that each container have its own unique identity, thus broadening the scope beyond what Applicants had invented.

Material Misrepresentations And Omissions To The USPTO Regarding The Novelty Of The Claimed Invention

112. On information and belief, the information and statements made during the prosecution of the European Counterpart Application related to novelty were material to the patentability of the '814 Patent, but were withheld from the USPTO.

113. For example, in the USPTO's December 10, 2008 Notice of Allowance, the Examiner explained that "[n]owhere in the prior art is found collectively the *italicized* claim elements (i.e., the various aspects of applications software not being sharable between the plurality of secure (and isolated) containers of application software, and unique root file systems different from an operating system's root file system, so as to allow for different versions of the same operating system running on the same system/server environment), at the ***time*** *of the invention*." Exhibit 13 ('814 Prosecution History) at 344–45 (12/10/2008 Notice of Allowance and Fees Due (PTOL-85)).

114. However, by December 10, 2008, the EPO had already found Schaefer disclosed these limitations in three separate rejections. For example, in the EPO's Second Rejection, the EPO had found that Schaefer renders obvious multiple servers (Exhibit 14 (EPO File History) at 169), and that Schaefer "clearly discloses that applications which were written for a different version of the operating system are adapted in order to be executable on the current operating system version." *Id.* at 170. In the EPO's Third Rejection, the EPO further explained how Schaefer "is not limited to the Windows operating system" but rather was only an example embodiment, as Schaefer "discusses other operating systems as well." *Id.* at 192. Additionally, after the Applicants' amendments on October 2, 2008, the EPO's Fourth Rejection explicitly found that Schaefer does disclose a unique root file system for each container. *See id.* at 213.

115. Indeed, in Applicants' reply to the EPO's First Rejection, Applicants conceded that Schaefer "provides an operating system guard, … which provides, for each application, more or less duplicates of the files of the operating system, and only those duplicates are modified. Therefore, the operating system itself remains unchanged, and each application sees its own modified system files." Exhibit 14 (EPO File History) at 150.

116. Notably, despite the clear statements in the EPO's Second Rejection on November 23, 2007 that Schaefer "clearly discloses that applications which were written for a different version of the operating system are adapted in order to be executable on the current operating system version" (Exhibit 14 (EPO File History) at 170), Applicants told the USPTO nearly 10 months later on September that the ability for multiple application versions to execute on the same OS was "a new and unique ability for combining, deploying and managing applications." Exhibit 13 ('814 Prosecution History) at 311 (9/3/2008 Applicant Arguments/Remarks Made in an Amendment) ("It is significant that multiple Oracle/SQL Server/Sysbase/CRM/App servers/ etc. can execute correctly on the same Operating Systems. The number of OS images needed, along with the associated license and management costs are greatly diminished. This enables a new and unique ability for combining, deploying and managing applications.").

117. On information and belief, if this material had been disclosed to the USPTO, the claims of the '814 Patent would not have issued, as they presently exist, as the EPO's rejections establish that Schaefer discloses the very features that the USPTO Examiner found were not present in the prior art. As further evidence of the materiality associated with the Schaefer reference, the counterpart Canadian patent application No. CA 2481613 was similarly rejected by the Canadian patent office over Schaefer. Exhibit 15 (Feb. 18, 2013, Examiner Rejection).

118. On information and belief, the material admissions set forth in the statements to the EPO were withheld from the USPTO with the intent to deceive the Examiner into allowing the claims of the ’814 Patent to issue, despite certain elements being disclosed in the prior art.

COUNT 6: DECLARATION OF UNENFORCEABILITY OF U.S. PATENT NO. 7,519,814 BASED ON INEQUITABLE CONDUCT

119. IBM realleges Paragraphs 1–35 and 76–118 as if fully set forth herein. IBM’s investigation is ongoing, and it therefore reserves the right to seek leave to further amend its Answer to include additional facts or bases of inequitable conduct as they become known.

120. The ’814 Patent is unenforceable for inequitable conduct due to VirtaMove’s failure to disclose material prior art to the USPTO.

121. The withholding of material information with the intent to deceive the USPTO is a violation of the duty of disclosure under 37 C.F.R. § 1.56(a).

122. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith to disclose to the USPTO all information known to that individual to be material to patentability. 37 C.F.R. § 1.56(a).

123. The individuals substantively involved with the filing and prosecution of the ’814 Patent owed duties of disclosure under 37 C.F.R. § 1.56 and include at least the named inventors Donn Rochette, Paul O’Leary, and Dean Huffman, as well as prosecuting attorneys, including Charles E. Wands and Christopher F. Regan. A violation of this duty of disclosure can result in a finding of inequitable conduct. *Therasense*, 649 F.3d at 1285. “[I]nequitable conduct regarding any single claim renders the entire patent unenforceable.” *Id.* at 1288.

Material Misrepresentation and Omissions Concerning Prior Art Solaris 10

124. During prosecution of the '814 Patent, at least the named inventors, including Mr. Rochette, Mr. O'Leary, and Mr. Huffman, the named assignee, Trigence Corp., and prosecuting attorneys ("Applicants"), violated 37 C.F.R. § 1.56 by (1) failing to disclose prior art reference Solaris 10 to the USPTO, including papers, publications, and other materials known to at least the named inventors and Trigence Corp. and (2) making a material misrepresentation to the USPTO regarding the novelty of the claimed invention, despite their knowledge of Solaris 10 and its materiality. Applicants withheld this material, noncumulative prior art with the specific intent to deceive the USPTO. The claims of the '814 Patent include limitations found in the withheld prior art and not found by the examiner in any other cited art. The claims would not have issued but for the failure to disclose Solaris 10 to the USPTO.

125. Solaris Zones is a feature within the Solaris 10 operating system ("OS") for implementing operating system-level virtualization technology. More specifically, the Solaris Zones feature creates isolated containers for running software applications. *See generally* Exhibit 16 ('814 Patent Invalidity Chart for Solaris).

126. Solaris Zones was publicly available at least by February 2004. Exhibit 16 ('814 Patent Invalidity Chart for Solaris Zones) at 1.

127. Solaris 10 (including its feature Solaris Zones) is prior art to the claims of the '814 Patent. And on information and belief, Applicants were aware that Solaris 10 with the Zones feature predates the '814 Patent. *See, e.g.*, Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 27:3–27:21 (confirming that "Solaris predate[s] the ['814 and '058 Patents]" and acknowledging awareness of Solaris Zones "before [he] filed the applications that led to these two patents"); 33:18–37:22 (acknowledging access to working versions of Solaris Zones at least by the time of the filing of the provisional applications leading to the asserted patents), 50:21–51:5 (having

discussions with Sun Microsystems concerning Solaris Zones), 85:17–22 (learning about Solaris Zones capabilities through "[s]itting down in front of a Solaris operating system and using it. Reading the documentations and using the capabilities and testing it").

128. As detailed in IBM's invalidity chart concerning Solaris 10 and its Solaris Zones feature, which is incorporated herein by reference, and further confirmed by the evidence and testimony referenced below, this prior art is material to the patentability of at least Claims 1, 2, 4, 6, 9, and 10 of the '814 Patent in that it discloses the limitations of those claims and would have prevented the patent from issuing. Exhibit 16 ('814 Patent Invalidity Chart for Solaris with Solaris Zones).

129. During the prosecution of the '814 Patent, Applicants argued that the prior art relied on by the examiner in initially rejecting the '814 Patent Application did not disclose the claim limitation requiring "wherein said associated system files utilized in place of the associated local system files are copies or modified copies of the associated local system files that remain resident on the server, and wherein the application software cannot be shared between the plurality of secure containers of application software, and wherein each of the containers has a unique root file system that is different from an operating system's root file system." Exhibit 13 ('814 Prosecution History) at 323–36 (9/3/2008 Applicant Arguments/Remarks Made in an Amendment).

130. In addition, Applicants argued that the claimed invention "enable[d] a new and unique ability for combining, deploying, and managing applications." Exhibit 13 ('814 Prosecution History) at 311 (9/3/2008 Applicant Arguments/Remarks Made in an Amendment).

131. Despite these arguments to the USPTO, Applicants, including at least named inventors Mr. Rochette and Mr. O'Leary, as well as the assignee, Trigence Corp., were aware that the Solaris technology (including Solaris 10 and its Solaris Zones feature) disclosed the claimed

invention. Despite this awareness of the Solaris technology and its materiality to the subject matter of the claimed invention, they intentionally withheld information about that technology and misrepresented the state of the prior art in order to characterize the claimed invention as "new and unique."

132. Indeed, Mr. Rochette admitted that Solaris 10 practiced the requirements of the '814 Patent, including the claim limitations Applicants argued were not disclosed by the prior art. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 83:7–84:21. For example, Mr. Rochette admitted that Solaris Zones "ha[d] the ability to create a container – basically take an application that's already outside of a container and then make a copy of it inside of a container," and that application and/or system files could be copied into that container while the "original version" of those files could remain "outside of the container." *See id.* at 83:7–84:21. On information and belief, Applicants were therefore aware that Solaris 10 disclosed the '814 Patent claim limitation "wherein said associated system files utilized in place of the associated local system files are copies or modified copies of the associated local system files that remain resident on the server." Exhibit 13 ('814 Prosecution History) at 323–36 (9/3/2008 Applicant Arguments/Remarks Made in an Amendment).

133. As another example, Applicants, including Mr. Rochette, were aware that "applications inside of a container in Solaris zones" would not "be able to access the software in another container." Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 82:4–8; *see also id.* at 38:1–14, 53:15–21. Therefore, on information and belief, Applicants were aware that Solaris 10 disclosed the '814 Patent claim limitation "wherein the application software cannot be shared between the plurality of secure containers of application software." Exhibit 13 ('814 Prosecution History) at 323–36 (9/3/2008 Applicant Arguments/Remarks Made in an Amendment).

134. Applicants, including Mr. Rochette, were likewise aware that containers in the Solaris Zones feature "could have [their own] root file systems" that differed from those of the operating system. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 57:15–22, 82:10–13; *see also id.* at 75:8–11. Therefore, on information and belief, Applicants were aware that Solaris 10 disclosed the '814 Patent claim limitation "wherein each of the containers has a unique root file system that is different from an operating system's root file system," yet still argued that this limitation distinguished the alleged invention from prior art. Exhibit 13 ('814 Prosecution History) at 323–36 (9/3/2008 Applicant Arguments/Remarks Made in an Amendment).

135. Moreover, during prosecution, Applicants argued that the claimed invention was novel over the prior art of record because it allowed different versions of software to run under the same operating system together. *Id.*; *see also id*. at 341–42. But, on information and belief, Applicants were aware that container capabilities predating the '814 Patent, such as those in Solaris Zones, included this same functionality. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 130:13––134:22.

136. Furthermore, notes from inventor Mr. O'Leary (dated between 2002 and 2005) likewise confirm awareness of Solaris 10 and its materiality to the '814 Patent. [redacted] In light of the above, on information and belief, Mr. O'Leary had knowledge of Solaris 10, including its Solaris Zones feature, and would have known that Solaris 10 discloses the claimed limitations of the '814 Patent.

137. Internal documents prepared by Trigence Corp.—the original assignee of the '814 Patent, predecessor to VirtaMove, and led by Mr. Rochette and Mr. O'Leary—further confirm the Applicants' awareness of the operations of Solaris 10 and its materiality during the prosecution of the '814 Patent. [redacted] This technical submission confirms that the Solaris technology was material to the subject matter of the '814 Patent, including because it disclosed the '814 Patent claim limitation "wherein each of the containers has a unique root file system that is different from an operating system's root file system" as well as the other limitations of the '814 Patent. Exhibit 13 ('814 Prosecution History) at 36–74 (9/3/2008 Applicant Arguments/Remarks Made in an Amendment confirming this limitation is material to patentability). Trigence Corp. again referenced Solaris Zones in its December 2008 Release Notes on Version 3.2.0 of its AE product. *See generally* Exhibit 20 (VM_PA_0000320–0000358); *see also id.* at 0000329–30. Trigence Corp.'s repeated

acknowledgment of Solaris Zones not only during the early stages of the prosecution of the '814 Patent but also in the later stages of the prosecution reflects its continued awareness of the materiality of Solaris Zones to the patented subject matter. Yet Applicants never disclosed this technology to the USPTO.

138. In finding the claims of the '814 Patent allowable, the USPTO found that Applicants' arguments (which were made without mention of Solaris) "serv[ed] to patently ***distinguish the invention from said prior art***" because the prior art "fail[ed] to anticipate, disclose, teach or suggest alone, or in combination, at the time of the invention" "the various aspects of applications software not being sharable between the plurality of secure (and isolated) containers of application software, and unique root file systems different from an operating system's root file system, so as to allow for different versions of the same operating system running on the same system/server environment." Exhibit 13 ('814 Prosecution History) at 340–48 (12/10/2008 Notice of Allowance and Fees Due (PTOL-85)). Accordingly, the USPTO granted the application and issued the '814 Patent.

139. Had Applicants disclosed the Solaris technology and its materiality to the claimed invention, and further refrained from misrepresenting the state of the prior art, the USPTO would not have reached the above conclusion and issued the '814 Patent.

140. Indeed, the prior art Solaris technology is not cumulative of the prior art that was disclosed to the USPTO because it discloses the claimed limitations the USPTO determined were not found in any art of record during prosecution and the material information in the reference is not present in any of the prior art that was disclosed to or cited by the patent examiner during the prosecution of the'814 Patent. Indeed, Applicants did not disclose any prior art that they understood to be cumulative of Solaris or otherwise offer any good-faith explanation why they

failed to disclose Solaris 10 to the patent examiner. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 140:16–150:4.

141. Applicants' knowledge of Solaris 10 and its materiality, their known duty of disclosure, and their failure to disclose the reference and the material misrepresentations made to the USPTO during the prosecution of the '814 Patent, evidence their intent to conceal the reference from the USPTO.

142. More specifically, the named inventors, including Mr. Rochette and Mr. O'Leary, all signed a declaration acknowledging their "duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of the Federal Regulations, S.156(a)." Exhibit 13 ('814 Prosecution History) at 59–61 (9/13/2004 Oath or Declaration filed) (Donn Rochette, Paul O'Leary, and Dean Huffman acknowledging their duty to disclose). As previously explained, Applicants, including Mr. Rochette and Mr. O'Leary, had knowledge about the prior art Solaris technology during the prosecution of the '814 Patent, including through their [redacted]. *See, e.g.*, *supra* ¶¶ 127, 131–37. Mr. Rochette confirmed that the prior art Solaris technology disclosed the vast majority of, if not all, claim limitations of the '814 Patent, including those claims that Applicants represented were not present in the prior art. *See supra* ¶¶ 131–35. Mr. O'Leary's inventor notebook further confirms his knowledge of the material Solaris technology prior to and during the prosecution of the claimed invention. *See supra* ¶ 136. Despite their extensive knowledge, testing, and use of the prior art Solaris technology and despite knowing that technology was material to the examination of their patent application, Applicants did not identify it to the USPTO, thereby breaching their signed duty to disclose. Given their recent and material knowledge and known duty of disclosure, there is no colorable reason for Applicants to withhold the Solaris technology

other than to deceive the USPTO. Moreover, on information and belief, Applicants, including at least named inventors Mr. Rochette and Mr. O'Leary and named assignee Trigence Corp., were motivated to deceive the USPTO because securing a patent in the purported invention was critical to the success of Trigence Corp. For example, around the time of prosecuting the '814 Patent, [redacted] At bottom, on information and belief, Applicants knew that Sun Microsystems had developed the claimed technology prior to Applicants and that, if disclosed to the USPTO, the teachings of the Solaris technology would directly undermine Applicants' arguments for patentability, prevent the claims of the '058 Patent from issuing, and pose a significant risk to Trigence Corp.'s business.

143. By failing to disclose material, non-cumulative prior art that they were aware of through their study, use, and work with Solaris 10 that would have led to the invalidation of certain claims of the '814 Patent, Applicants violated the duty of candor, good faith, and honesty owed by patent applicants. This constitutes inequitable conduct and renders the '814 Patent unenforceable.

COUNT 7: DECLARATION OF UNENFORCEABILITY OF U.S. PATENT NO. 7,784,058 BASED ON INEQUITABLE CONDUCT

144. IBM realleges Paragraphs 1–35 and 119–43 as if fully set forth herein. IBM's investigation is ongoing, and it therefore reserves the right to seek leave to further amend its Answer to include additional facts or bases of inequitable conduct as they become known.

145. The '058 Patent is unenforceable for inequitable conduct due to VirtaMove's failure to disclose material prior art to the USPTO.

146. The withholding of material information with the intent to deceive the USPTO is a violation of the duty of disclosure under 37 C.F.R. § 1.56(a).

147. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith to disclose to the USPTO all information known to that individual to be material to patentability. 37 C.F.R. § 1.56(a).

148. The individuals substantively involved with the filing and prosecution of the '058 Patent owed duties of disclosure under 37 C.F.R. § 1.56 and include, for example, at least the Applicants—*i.e.*, named inventors Donn Rochette, Paul O'Leary, and Dean Huffman—as well as others substantively involved with the prosecution, including Charles E. Wands and Christopher F. Regan. A violation of this duty of disclosure can result in a finding of inequitable conduct. *Therasense*, 649 F.3d at 1285. "[I]nequitable conduct regarding any single claim renders the entire patent unenforceable." *Id.* at 1288.

Material Omissions Concerning Prior Art Reference Solaris 10

149. During prosecution of the '058 Patent, at least the named inventors, Mr. Rochette, Mr. O'Leary, and Mr. Huffman, the named assignee, Trigence Corp., and prosecuting attorneys ("Applicants"), violated 37 C.F.R. § 1.56 by failing to disclose prior art reference Solaris 10 to the USPTO, including papers, publications, and other materials known to at least the named inventors and Trigence Corp. Applicants withheld the material, noncumulative prior art with the specific intent to deceive the USPTO. The '058 Patent claims include limitations found in the withheld prior art and not found by the examiner in any other cited art. Those claims would not have issued but for the failure to disclose Solaris Zones to the USPTO.

150. Solaris Zones is a feature within the Solaris 10 operating system ("OS") for implementing operating system-level virtualization technology. More specifically, the Solaris

Zones feature creates isolated containers for running software applications. *See generally* Exhibit 21 ('058 Patent Invalidity Chart for Solaris Zones).

151. Solaris Zones was publicly available at least by February 2004. Exhibit 21 ('058 Patent Invalidity Chart for Solaris Zones) at 1.

152. Solaris 10 (including its feature Solaris Zones) is prior art to the claims of the '058 Patent. Applicants were aware that Solaris 10 with the Zones feature predates the '058 Patent. *See, e.g.*, Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 27:3–27:21 (confirming that "Solaris predate[s] the ['814 and '058 Patents]" and acknowledging awareness of Solaris Zones "before [he] filed the applications that led to these two patents"); 33:18–37:22 (acknowledging access to working versions of Solaris Zones at least by the time of the filing of the provisional applications leading to the asserted patents), 50:21–51:5 (having discussions with Sun Microsystems concerning Solaris Zones), 85:17–22 (learning about Solaris Zones capabilities through "[s]itting down in front of a Solaris operating system and using it. Reading the documentations and using the capabilities and testing it").

153. As detailed in IBM's invalidity chart concerning Solaris 10 and its Solaris Zones feature, and further confirmed by the evidence and testimony referenced below, this prior art is material to the patentability of at least Claims 1, 2, 3, 4, and 18 of the '058 Patent in that it discloses the limitations of those claims. Exhibit 21 ('058 Patent Invalidity Chart for Solaris Zones).

154. During the prosecution of the '058 Patent, Applicants argued that the prior art relied on by the examiner in previously rejecting the '058 Patent application did not disclose the claim limitations requiring "a shared library having critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and wherein an instance of an SLCSE provided to one or more of the plurality of software applications from the shared library is run in

a context of the one or more of the plurality of software applications without being shared with other plurality of software applications and where one or more of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing essentially the same function," "some of the SLCSEs stored in the shared library being functional replicas of OSCSEs," and "when one of the SLCSEs is accessed by one or more of the plurality of software applications, it forms a part of the one or more of the plurality of software applications." Exhibit 22 ('058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment). Applicants argued that in contrast to the teachings of prior art, "storing some of the SLSCEs in the shared library as functional replicas of OSCSEs" "is particularly advantageous in multiple operating system environments" and that their invention "advantageously provides the ability to create unique environments for an application to execute within or by the SLCSEs." *Id.* at 325–26.

155. Despite these arguments to the USPTO, Applicants, including at least named inventors Mr. Rochette and Mr. O'Leary, as well as the assignee, Trigence Corp., were aware that the Solaris technology (including Solaris 10 and its Solaris Zones feature) disclosed the claimed invention. Despite this awareness of the Solaris technology and its materiality to the subject matter of the claimed invention, they intentionally withheld information about that technology during prosecution of the '058 Patent.

156. Indeed, Mr. Rochette admitted that Solaris 10 practiced the requirements of the '058 Patent, including the claim limitations Applicants argued were not disclosed by the prior art.

157. For example, Mr. Rochette admitted that Solaris Zones "had support for shared libraries" and that he had been "aware of Solaris's support for shared libraries before [he] filed" the application leading to the '058 Patent. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 27:13–

16; 28:3–20. Mr. Rochette also admitted that Solaris Zones allowed developers to move functionality into a shared library from an operating system's kernel, and that such a capability "had been present in Solaris since its first release of its origin." *Id.* at 39:2–42:6; 64:2–8; 84:22–87:8. Mr. Rochette also admitted that multiple Zones could make use of the same library, but that Zones provided a "separate container, a separate security environment" in which the application could "have its own version of files" or "a separate instance of files," *Id.* at 38:1–14; 39:3–42:6; 77:13–15; 84:22–89:9. Therefore, on information and belief, Applicants were aware that Solaris 10 disclosed the '058 Patent claim limitation of "a shared library having critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and wherein an instance of an SLCSE provided to one or more of the plurality of software applications from the shared library is run in a context of the one or more of the plurality of software applications without being shared with other plurality of software applications and where one or more of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing essentially the same function" and that "when one of the SLCSEs is accessed by one or more of the plurality of software applications, it forms a part of the one or more of the plurality of software applications." Exhibit 22 ('058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment).

158. As another example, Applicants were aware that application or system files could be copied into a container in Solaris Zones and that it would be possible "to still have the original version [of the files] outside of the container" after making copies. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 84:10–21. Therefore, on information and belief, Applicants were aware that Solaris 10 disclosed the '058 Patent claim limitation of "some of the SLCSEs stored in the shared

library being functional replicas of OSCSEs." Exhibit 22 ('058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment).

159. Applicants, including Mr. Rochette, were likewise aware that the use of shared libraries, such as that described in a paper titled "Shared Libraries in SunOS," which discusses the technology underlying Solaris Zones, was "a pretty big deal" in part because they provided the ability to run older applications on new operating systems or a new version of an operating system. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 115:8–117:2; 135:6–138:16. Therefore, on information and belief, Applicants were aware that Solaris 10 disclosed the '058 Patent claim limitation of a feature for "multiple operating system environments" that "advantageously provides the ability to create unique environments for an application to execute within or by the SLCSEs." Exhibit 22 ('058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment).

160. Mr. Rochette further admitted he was unable to identify any differences between the claims of the '058 Patent and Solaris 10 and its Solaris Zones feature. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 91:2–93:5.

161. Furthermore, notes from inventor Mr. O'Leary (dated between 2002 and 2005) likewise confirm his awareness of Solaris 10 and its materiality to the '058 Patent. *See generally* Exhibit 18 (VM_IBM_0001542–0001845); *see also, e.g.*, *id.* at 0001810, 0001821. On information and belief, Mr. O'Leary had knowledge of Solaris 10 and its Solaris Zones feature, and would have known that Solaris 10 discloses the claimed limitations of the '058 Patent.

162. Internal documents prepared by Trigence Corp.—the original assignee of the '058 Patent, predecessor to VirtaMove, and led by Mr. Rochette and Mr. O'Leary (among others)—further confirm Applicants' awareness of Solaris 10 and its materiality during the prosecution of

the ’058 Patent. [redacted]

[redacted] This technical submission confirms that the Solaris technology was material to the subject matter of the ’058 Patent, including because it disclosed the ’058 Patent claim limitation “a shared library having critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and wherein an instance of an SLCSE provided to one or more of the plurality of software applications from the shared library is run in a context of the one or more of the plurality of software applications without being shared with other plurality of software applications and where one or more of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing essentially the same function.” Exhibit 22 (’058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment) (emphasizing these claim limitation over prior art). Trigence Corp. again referenced Solaris Zones in its December 2008

Release Notes on Version 3.2.0 of its AE product. *See generally* Exhibit 20 (VM_PA_0000320–0000358); *see also id.* at 0000329–30. On information and belief, including based on Trigence Corp.'s repeated acknowledgment of Solaris Zones throughout prosecution, it was aware of the materiality of Solaris Zones to the patented subject matter during all relevant times. Yet Applicants never disclosed this technology to the USPTO.

163. In finding the claims of the '058 Patent allowable, the USPTO found that Applicants' arguments (which were made without mention of Solaris) demonstrated that none of the prior art disclosed "a shared library having shared library critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and i) wherein some of the SLCSEs stored in the shared library are functional replicas of OSCSEs and are accessible to some of the plurality of software applications and when one of the SLCSEs is accessed by one or more of the plurality of software applications it forms a part of the one or more of the plurality of software applications, ii) wherein an instance of a SLCSE provided to at least a first of the plurality of software applications from the shared library is run in a context of said at least first of the plurality of software applications without being shared with other of the plurality of software applications and where at least a second of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing same function, and iii) wherein a SLCSE related to a predetermined function is provided to the first of the plurality of software applications for running a first instance of the SLCSE, and wherein a SLCSE for performing a same function is provided to the second of the plurality of software applications for running a second instance of the SLCSE simultaneously" (Claim 1). Instead, Elnozahy discloses kernel extension device driver that are user space extensions of operating system code to minimize kernel calls by web server and Wong discloses

user mode accessible copies of kernel-mode memory to facilitate a device driver to execute in user-mode while the graphics engine remains in kernel mode." Exhibit 22 ('058 Prosecution History) at 350–59 (5/3/2010 Notice of Allowance and Fees Due (PTOL-85)). Accordingly, the USPTO granted the application and issued the '058 Patent.

164. Had Applicants disclosed the Solaris technology and its materiality to the claimed invention, the USPTO would not have reached the above conclusion and issued the '058 Patent.

165. Indeed, the prior art Solaris technology is not cumulative of the prior art that was disclosed to the USPTO because it discloses the claimed limitations the USPTO determined were not found in any art of record during prosecution, and the material information in the reference is not present in any of the prior art that was disclosed to or cited by the patent examiner during the prosecution of the '058 Patent. Indeed, Applicants did not disclose any prior art that they understood to be cumulative of the Solaris technology or otherwise offer any good-faith explanation why they failed to disclose Solaris 10 to the patent examiner. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 139:17–149:4.

166. On information and belief—including based on Applicants' recent and extensive knowledge of Solaris 10 and its materiality leading up to and during prosecution, and their failure to disclose the reference during the prosecution of the '058 Patent—Applicants specifically intended to conceal the Solaris technology from the USPTO. The named inventors, including Mr. Rochette and Mr. O'Leary, all signed a declaration acknowledging their "duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of the Federal Regulations, S.156(a)." Exhibit 22 ('058 Prosecution History) at 33–35 (9/21/2004 Oath or Declaration filed) (Donn Rochette, Paul O'Leary, and Dean Huffman acknowledging their duty to disclose). As previously explained, Applicants, including Mr.

Rochette and Mr. O'Leary, had knowledge about the prior art Solaris technology leading up to and during the prosecution of the '058 Patent, including through [redacted] *See, e.g.*, *supra* ¶¶ 152, 155–62. Mr. Rochette confirmed that the prior art Solaris technology disclosed the vast majority of, if not all, claim limitations of the '058 Patent, including those claims that Applicants represented were not present in the prior art. *See supra* ¶¶ 155–60. Mr. O'Leary's inventor notebook further confirms his knowledge of the material Solaris technology prior to and during the prosecution of the claimed invention. *See supra* ¶ 161. Despite their extensive knowledge, testing, and use of the prior art Solaris technology, and despite knowing that technology was material to the examination of their patent application, Applicants did not identify it to the USPTO, thereby breaching their signed duty to disclose. Given their recent and material knowledge and known duty of disclosure, there is no colorable reason for Applicants to withhold the Solaris technology other than to deceive the USPTO. Moreover, on information and belief, Applicants, including at least named inventors Mr. Rochette and Mr. O'Leary and named assignee Trigence Corp., were motivated to deceive the USPTO because securing a patent in the purported invention was critical to the success of Trigence Corp. For example, around the time of prosecuting the '058 Patent, [redacted] At bottom, on information and belief, Applicants knew that Sun Microsystems had developed the claimed technology prior to Applicants and that, if disclosed to the USPTO, the teachings of the Solaris technology would directly undermine Applicants'

arguments for patentability, prevent the claims of the '058 Patent from issuing, and pose a significant risk to Trigence Corp.'s business.

167. By failing to disclose material, non-cumulative prior art that they were aware of through their study, use, and work with Solaris 10 that would have led to the invalidation of certain claims of the '058 Patent, Applicants violated the duty of candor, good faith, and honesty owed by patent applicants. This constitutes inequitable conduct and renders the '058 Patent unenforceable.

Material Omissions Concerning Prior Art Reference FreeBSD 4.0

168. During prosecution of the '058 Patent, at least the named inventors, including Mr. Rochette and Mr. O'Leary, the named assignee, Trigence Corp., and prosecuting attorneys ("Applicants"), violated 37 C.F.R. § 1.56 by failing to disclose prior art reference FreeBSD 4.0 to the USPTO, including papers, publications, and other materials known to at least the named inventors and Trigence Corp. Applicants withheld the material, noncumulative prior art with the specific intent to deceive the USPTO. The '058 Patent claims include limitations found in the withheld prior art and not found by the examiner in any other cited art. Those claims would not have issued but for the failure to disclose FreeBSD 4.0 to the USPTO.

169. BSD jails is a feature within the FreeBSD 4.0 OS that provides the ability to partition the operating system environment, while maintaining the simplicity of the UNIX root model. *See generally* Exhibit 21 ('058 Patent Invalidity Chart for FreeBSD 4.0).

170. FreeBSD has been publicly available at least as early as December 1993, and FreeBSD 4.0 (including its feature BSD jails) was released and was publicly available at least as early as March 14, 2000. Exhibit 23 ('058 Patent Invalidity Chart for FreeBSD 4.0) at 1.

171. FreeBSD 4.0 (including its feature BSD jails) is prior art to the claims of the '058 Patent.

172. As detailed in IBM's invalidity chart concerning FreeBSD 4.0 and its BSD jails feature, and further confirmed by the evidence and testimony referenced below, this prior art is material to the patentability of at least Claims 1, 2, 3, 4, and 18 of the '058 Patent in that it discloses the limitations of those claims. Exhibit 23 ('058 Patent Invalidity Chart for FreeBSD 4.0 with BSD jails).

173. The materiality of FreeBSD 4.0 is confirmed by the USPTO recently granting a Request for *Ex Parte* Reexamination ("EPR") of the '058 Patent based, at least in part, on features and technology available in FreeBSD 4.0. Exhibit 24 (10/24/2024 Order Granting Request for EPR).

174. On September 23, 2024, third-party Unified Patents, LLC requested reexamination of Claims 1 and 12 of the '058 Patent. *Id.* at 4. Unified Patents, LLC's request for reexamination was based on prior art references "Lucas," "Blott," and "Kamp"—all of which were not cited during the original prosecution of the patent application which led to the '058 Patent. *Id.* at 7–8.

175. Lucas is a publication titled "Absolute BSD: the Ultimate Guide to FreeBSD" and was published in 2002. *Id.* at 7. Blott is a publication titled "NetTap: an efficient and reliable PC-based platform for network programming" and was published in March 2002. *Id.* at 7–8. Kamp is a publication titled "Jails: Confining the omnipotent root" and was accessible in 2000. *Id.* at 8.

176. Based on these references, which discuss features and technology available in FreeBSD prior to the priority date of the '058 Patent, the USPTO determined that "[a] substantial new question of patentability" as to the claims of the '058 Patent is "raised by the request for *ex parte* reexamination, and "[a]s such the filed request for reexamination is granted." *Id.* at 4.

177. In finding these cited references to be material to the patentability of certain claims of the '058 Patent, the USPTO noted that the Lucas reference "shows in relation to the FreeBSD

operating system: an operating system with a kernel having critical system elements . . .; a shared library with critical system elements for use by software applications . . .; and an instance run in a context without being shared with other applications." *Id.* at 9. The USPTO further noted that the Blott reference "shows in relation to the FreeBSD operating system: shared user-level libraries . . .; and libraries as functional replicas of critical kernel elements." *Id.* The USPTO further noted that the Kamp reference "discloses in relation to the FreeBSD operating system: shared libraries of an instance not shared with another instance with its own shared libraries . . .; and two simultaneously running instances." *Id.* at 10.

178. Based on these disclosures, the USPTO described additional functionalities of FreeBSD and its FreeBSD Jails feature. *See, e.g.*, *id.* at 9 ("when using FreeBSD, you can build an entire virtual machine on disk, and isolate that machine from the rest of your system. This is called a jail."); *id*. at 10 ("the expected configuration creates a complete FreeBSD installation for each jail. This includes copies of all relevant system binaries, data files, and its own /etc directory. Such a configuration maximizes the independence of various jails, and reduces the chances of interference between jails being possible."); *id*. ("Processes in a jail are provided full access to the files that they may manipulate, processes they may influence, and network services they can make use of, and neither access nor visibility of files, processes or network services outside their partition"); *id*. ("Processes within the jail will find that they are unable to interact or even verify the existence of processes outside the jail – processes within the jail are prevented from delivering signals to processes outside the jail, as well as connecting to those processes with debuggers, or even see them in the sysctl or process file system monitoring mechanisms. Jail does not prevent, nor is it intended to prevent, the use of covert channels or communications mechanism via accepted

interfaces – for example, two processes may communicate via sockets over the IP network interface").

179. The USPTO concluded that the above disclosures "constitute teachings pertinent" to multiple claim limitations of the '058 Patent and "were not previously considered in the prosecution" of the '058 Patent. *Id.* at 10–11. The USPTO further concluded, based on its review of the '058 Patent prosecution history, that these claim limitations "were important to the allowability" of the '058 Patent. *Id.* at 11.

180. The USPTO further concluded that "[i]n light of these teachings, *Lucas* in view of *Blott* and *Kamp*"—all of which disclose teachings available in FreeBSD—" is found to provide new prior art teachings that would be considered important to a reasonable examiner in evaluating the patentability of claims 1 and 12 [of the '058 Patent]. Accordingly, *Lucas* in view of *Blott* and *Kamp* raises a substantial new question of patentability with respect to claims 1 and 12." *Id.* (emphasis in original).

181. During the prosecution of the '058 Patent, Applicants argued that the prior art relied on by the examiner in previously rejecting the '058 Patent application did not disclose the claim limitations requiring "a shared library having critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and wherein an instance of an SLCSE provided to one or more of the plurality of software applications from the shared library is run in a context of the one or more of the plurality of software applications without being shared with other plurality of software applications and where one or more of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing essentially the same function," "some of the SLCSEs stored in the shared library being functional replicas of OSCSEs," and "when one of the SLCSEs is

accessed by one or more of the plurality of software applications, it forms a part of the one or more of the plurality of software applications." Exhibit 22 ('058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment). Applicants argued that in contrast to the teachings of prior art, "storing some of the SLSCEs in the shared library as functional replicas of OSCSEs" "is particularly advantageous in multiple operating system environments" and that their invention "advantageously provides the ability to create unique environments for an application to execute within or by the SLCSEs[]." *Id.* at 325–26.

182. Despite these arguments to the USPTO, Applicants, including at least named inventors Mr. Rochette and Mr. O'Leary, as well as the assignee, Trigence Corp., were aware that the FreeBSD technology (including FreeBSD 4.0 and its BSD jails feature) disclosed the claimed invention. On information and belief, despite this awareness of the FreeBSD technology and its materiality to the subject matter of the claimed invention, they intentionally withheld this information about that material technology.

183. Indeed, Mr. Rochette admitted that FreeBSD 4.0 practiced the requirements of the '058 Patent, including the claim limitations Applicants argued were not disclosed by the prior art.

184. For example, Mr. Rochette admitted that he was aware of BSD jails. Exhibit 17 (9/10/2024 D. Rochette Dep. Tr.) at 59:8–10. Mr. Rochette also admitted that BSD jails was "another container capability." *Id.* at 59:18–20. Therefore, on information and belief, Applicants, including Mr. Rochette, were aware that FreeBSD 4.0 disclosed information material to the patentability of the '058 Patent.

185. In another instance, Mr. Rochette drew a parallel between BSD jails and Solaris Zones, describing BSD jails as "an open source response to the capabilities in Solaris [Z]ones. It was a way of obtaining very similar behavior exemplified by zones in an open source Unix

capability that didn't require licensing yet." *Id.* at 59:11–17. As explained above, Mr. Rochette admitted that the "capabilities in Solaris zones" practice the claimed limitations of the '058 Patent. Accordingly, on information and belief, Applicants were aware that FreeBSD 4.0 disclosed the '058 Patent claim limitations of "a shared library having critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and wherein an instance of an SLCSE provided to one or more of the plurality of software applications from the shared library is run in a context of the one or more of the plurality of software applications without being shared with other plurality of software applications and where one or more of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing essentially the same function," "some of the SLCSEs stored in the shared library being functional replicas of OSCSEs," and "when one of the SLCSEs is accessed by one or more of the plurality of software applications, it forms a part of the one or more of the plurality of software applications." Exhibit 22 ('058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment).

186. Notes from inventor Mr. O'Leary (dated between 2002 and 2005) likewise confirm his awareness of FreeBSD technology and its functionality before and during the prosecution of the '058 Patent. [redacted] In light of the above, on information and belief, Mr. O'Leary had knowledge of FreeBSD 4.0 and its BSD jails feature and would have known that FreeBSD 4.0 discloses the claimed limitations of the '058 Patent.

187. Internal documents prepared by Trigence Corp.—the original assignee of the '058 Patent, predecessor to VirtaMove, and led by Mr. Rochette and Mr. O'Leary (among others)—further confirm Applicants' awareness of FreeBSD 4.0 and its materiality during the prosecution

of the ’058 Patent. [redacted]

This technical submission confirms that the FreeBSD 4.0 technology was material to the subject matter of the ’058 Patent, including because it disclosed the ’058 Patent claim limitation “a shared library having critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and wherein an instance of an SLCSE provided to one or more of the plurality of software applications from the shared library is run in a context of the one or more of the plurality of software applications without being shared with other plurality of software applications and where one or more of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing essentially the same function.” Exhibit 22 (’058 Prosecution History) at 321–43 (1/15/2010 Applicant Arguments/Remarks Made in an Amendment emphasizing these claim limitation over prior art). Yet Applicants never disclosed this technology to the USPTO.

188. In finding the claims of the '058 Patent allowable, the USPTO found that Applicants' arguments (which were made without mention of FreeBSD) demonstrated that none of the prior art disclosed "a shared library having shared library critical system elements (SLCSEs) stored therein for use by the plurality of software applications in user mode and i) wherein some of the SLCSEs stored in the shared library are functional replicas of OSCSEs and are accessible to some of the plurality of software applications and when one of the SLCSEs is accessed by one or more of the plurality of software applications it forms a part of the one or more of the plurality of software applications, and ii) wherein an instance of a SLCSE provided to at least a first of the plurality of software applications from the shared library is run in a context of said at least first of the plurality of software applications without being shared with other of the plurality of software applications and where at least a second of the plurality of software applications running under the operating system have use of a unique instance of a corresponding critical system element for performing same function, and iii) wherein a SLCSE related to a predetermined function is provided to the first of the plurality of software applications for running a first instance of the SLCSE, and wherein a SLCSE for performing a same function is provided to the second of the plurality of software applications for running a second instance of the SLCSE simultaneously" (Claim 1). Instead, Elnozahy discloses kernel extension device driver that are user space extensions of operating system code to minimize kernel calls by web server and Wong discloses user mode accessible copies of kernel-mode memory to facilitate a device driver to execute in user-mode while the graphics engine remains in kernel mode." Exhibit 22 ('058 Prosecution History) at 349–54 (5/3/2010 Notice of Allowance and Fees Due (PTOL-85)). Accordingly, the USPTO granted the application and issued the '058 Patent.

189. Had Applicants disclosed the FreeBSD technology and its materiality to the claimed invention, and further refrained from misrepresenting the state of the prior art to the USPTO, the USPTO would not have reached the above conclusion and issued the '058 Patent.

190. Indeed, the prior art FreeBSD technology is not cumulative of the prior art that was disclosed to the USPTO because it discloses the claimed limitations the USPTO determined were not found in any art of record during prosecution, and the material information in the reference is not present in any of the prior art that was disclosed to or cited by the patent examiner during the prosecution of the '058 Patent. Indeed, Applicants did not disclose any prior art that they understood to be cumulative of FreeBSD.

191. Applicants' knowledge of FreeBSD 4.0 and its materiality, coupled with their failure to disclose the reference during the prosecution of the '058 Patent, evidence their intent to conceal the reference from the USPTO. On information and belief, they withheld FreeBSD 4.0 from the patent examiner with the intent to deceive the USPTO because they knew that its teachings directly undermined their arguments for the patentability of the '058 Patent. More specifically, the named inventors, including Mr. Rochette and Mr. O'Leary, all signed a declaration acknowledging their "duty to disclose information which is material to the examination of this application in accordance with Title 37, Code of the Federal Regulations, S.156(a)." Exhibit 22 ('058 Prosecution History) 33–35 (9/21/2004 Oath or Declaration filed) (Donn Rochette, Paul O'Leary, and Dean Huffman acknowledging their duty to disclose). As previously explained, Applicants, including Mr. Rochette and Mr. O'Leary, had knowledge about the prior art FreeBSD technology during the prosecution of the '058 Patent. *See, e.g.*, *supra* ¶¶ 182–87. Through his testimony about FreeBSD directly and in relation to Solaris Zones, Mr. Rochette confirmed that the prior art FreeBSD technology disclosed the vast majority of, if not all, claim limitations of the

'058 Patent, including those claims that Applicants represented were not present in the prior art. *See supra* ¶¶ 183–86. Mr. O'Leary's inventor notebook further confirms his knowledge of the material FreeBSD technology prior to and during the prosecution of the claimed invention. *See supra* ¶ 187. Despite their extensive knowledge of the prior art FreeBSD technology, and despite knowing that technology was material to the examination of their patent application, Applicants did not identify it to the USPTO, thereby breaching their signed duty to disclose. Given their recent and material knowledge and known duty of disclosure, there is no colorable reason for Applicants to withhold the Solaris technology other than to deceive the USPTO. Moreover, on information and belief, Applicants, including at least named inventors Mr. Rochette and Mr. O'Leary, were motivated to deceive the USPTO because securing a patent in the purported invention was critical to the success of Trigence Corp. For example, around the time of prosecuting the '058 Patent, [redacted] Accordingly, on information and belief, Applicants, including at least named inventors Mr. Rochette and Mr. O'Leary and named assignee Trigence Corp., specifically intended to deceive the USPTO because they knew that if FreeBSD were disclosed to the USPTO, the teachings of the FreeBSD technology would directly undermine Applicants' arguments for patentability, prevent the claims of the '058 Patent from issuing, and pose a significant risk to Trigence Corp.'s business.

192. By failing to disclose material, non-cumulative prior art that they were aware of through their study of FreeBSD 4.0 that would have led to the invalidation of certain claims of the

'058 Patent, Applicants violated the duty of candor, good faith, and honesty owed by patent applicants. This constitutes inequitable conduct and renders the '058 Patent unenforceable.

PRAYER FOR RELIEF

WHEREFORE, IBM respectfully requests that this Court enter a Judgment and Order against VirtaMove as follows:

A. Entering a judgment and declaration against VirtaMove and in favor of IBM in all respects, including that VirtaMove has and will continue to infringe at least one claim of the '858, '038, '634, and '500 Patents;

B. For an order permanently enjoining VirtaMove, and their respective officers, directors, shareholders, agents, servants, employees, attorneys, all parent, subsidiary and affiliate corporations, their successors in interest and assigns, and all other entities and individuals acting in concert with it or on its behalf, including customers, from making, importing, using, offering for sale, and/or selling any products or service falling within the scope of any claim of the '858, '038, '634, and '500 Patents, including V-Migrate and V-Maestro, or otherwise infringing any claim of the '858, '038, '634, and '500 Patents;

C. Alternatively, in the event that an injunction does not issue, that this Court award a compulsory ongoing future royalty;

D. For damages arising from VirtaMove's infringement of the '858, '038, '634, and '500 Patents, including lost profits suffered by IBM as a result of VirtaMove's infringement and in an amount not less than a reasonable royalty, together with pre-judgment and post-judgment interest;

E. That this Court declare VirtaMove's infringement to be willful and award increased

damages in an amount not less than three times the damages assessed for VirtaMove's infringement to IBM for the period of such willful infringement pursuant to 35 U.S.C. § 285;

F. Declaring that IBM's products, including IBM Cloud Kubernetes Service, do not infringe directly or indirectly any claim of the '814 Patent and enjoining VirtaMove, its officers, agents, employees, attorneys, and all persons in active concert or participation with them, from directly or indirectly charging infringement, or instituting further action for infringement, of the '814 Patent against IBM or any of its customers;

G. Declaring that IBM's products, including IBM Cloud Kubernetes Service, do not infringe directly or indirectly infringe any claim of the '058 Patent and enjoining VirtaMove, its officers, agents, employees, attorneys, and all persons in active concert or participation with them, from directly or indirectly charging infringement, or instituting further action for infringement, of the '058 Patent against IBM or any of its customers;

H. Declaring that the '814 Patent is unenforceable;

I. Declaring that the '058 Patent is unenforceable;

J. Awarding IBM its costs and expenses; and

K. Granting such other relief as the Court deems just and proper.

JURY DEMAND

IBM, by and through its undersigned counsel, hereby demands, pursuant to Fed. R. Civ. P. 38, a trial by jury on all claims so triable in this action.

Dated: December 19, 2024

Respectfully submitted,

/s/ Brandon H. Brown

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CERTIFICATE OF SERVICE

The undersigned hereby certifies that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document via the Court's CM/ECF system pursuant to Local Rule CV-5(a)(3) on December 19, 2024.

/s/ Brandon H. Brown

Brandon H. Brown